# Warming Updates

## PP Solves

The PP is key to solve warming. **Rosenberg 4-19** writes[[1]](#footnote-1)

**One reason** global **warming opponents still have the upper hand is** basic **confusion over** the nature and significance of **uncertainty**. “There are numerous instances in which **politicians** and opinion makers **state**d **that ‘there is still so much uncertainty, we shouldn’t invest money to solve** the **climate** problem,’” Lewandowsky explained to Salon. Now he has just co-authored two related articles on scientific uncertainty and climate change — “Part I. Uncertainty and unabated emissions” and “Part II. Uncertainty and mitigation” — which show **this** thinking **is completely backwards. “**This is shown to be wrong by our analysis, because **uncertainty can never be too great for action**. On the contrary, **uncertainty implies that the problem is more likely** to be **worse than expected in the absence of that uncertainty**.” It’s a simple fact that your typical scientist already knows intuitively: **Uncertainty grows with risk, exposure and potential loss, especially with complex nonlinear systems, like** the global **climate** system. In fact, **it’s not even possible to calculate how much damage could come from worst-case climate scenarios**, as Working Group III lead co-author Christopher Field pointed out at the press conference for their report. The relationship between greater uncertainty and risk is both obvious to those in the know and invisible to those who aren’t. So it’s never been properly talked about — or even rigorously analyzed — until now. “Basically, we tried a new mathematical approach that is called ‘ordinal,’” Lewandowsky said. “An ordinal method allows us to address questions such as: ‘What would the consequences be if uncertainty is even greater than we think it is?’ That is, ordinal questions refer to the order of things, such as ‘greater than’ or ‘lesser than,’ but don’t address absolute questions such as ‘how much.’” So it doesn’t tell you how much worse things will get — which would certainly be nice to know — but it does tell you that they will get worse the more uncertain things are. In short, it gets you oriented in the right direction — 180 degrees away from where so-called “common sense” would take you. It puts you on the right path, asking the right kinds of questions, taking the right kinds of first steps, and avoiding getting lost in the confusion, mistakenly thinking that uncertainty means less to worry about. It’s hard to imagine a more basic finding. “Using that approach we showed that **as uncertainty in** the **temperature increase expected with** a **doubling of CO2** from pre-industrial levels **rises, so do** the **economic damages of** increased **climate change**,” Lewandowsky continued. “Greater uncertainty also increases the likelihood of exceeding ‘safe’ temperature limits and the probability of failing to reach mitigation targets. Likewise, **in the context of sea level rise, larger uncertainty requires greater precautionary action to manage flood** risk.” As for the impact on policy, Lewandowsky said, “We show that the adverse effects of uncertainty are ‘leveraged’ and hence amplified by more emissions. It follows that to reduce the adverse effects of uncertainty, we should curtail emissions. This is a pretty strong imperative, but our papers don’t prescribe an exact target for emissions. As I noted above, we cannot answer ‘how much’ questions, we can only say ‘less (pollution) is better.’”

## AT Not Anthro

Conspiracy analysis best explains warming denial. **Rosenberg 4-19** writes[[2]](#footnote-2)

In the paper on conspiracist ideation and worldviews, the authors wrote, “The prominence of **conspiracist ideation** in science rejection is not unexpected in light of its cognitive attributes.” For one thing, it **provides an out for people who don’t like what the consensus says**. “If you are faced with agreement among scientists, you have two choices,” Lewandowsky told me. “You either accept that they are on to something or… You think they all conspire to create a hoax for some nefarious reason. There aren’t too many other options, are there?” “When you look at the history of science denial, there is plenty of evidence that a scientific consensus drives deniers into postulating such a conspiracy — from tobacco to AIDS to climate.” A second reason **conspiracist ideation** crops up in resisting science is that it **has greater explanatory reach than science, because it’s not constrained by “**the criteria of **consistency and coherence** that characterize scientific reasoning**.” “**In the case of climate, this is — humorously — known as the ‘Quantum theory of denial,’” Lewandowsky told me. “**Deniers will claim in the same breath** (or within a few minutes) **that** (a) **temperatures cannot be measured reliably,** (b) **there is** definitely **no warming,** (c) the **warming isn’t caused by humans, and** (d) **we are doing ourselves a favor by warming the planet. The four propositions** are incoherent because they **cannot all be simultaneously true** — and yet deniers will utter all those in close succession all the time.” Finally, **conspiracist ideation is** also **typically immune to falsification, “because contradictory evidence** (e.g., climate scientists being exonerated of accusations) **can be accommodated by broadening the scope of the conspiracy** (exonerations are a whitewash), often with considerable creativity.” “One good example for this is Jim Sensenbrenner, a Republican congressman who called the exonerations of climate scientists after ‘climategate’ a ‘whitewash,’” Lewandowsky said. “This happens all the time, and sometimes takes on rather baroque forms, e.g., when the United Nations is invoked.” Lewandowksy sometimes refers to this as the “self-sealing” property of conspiracist ideation. It can be absolutely maddening to try to argue against. When I asked about other aspects of conspiracist ideation, I questioned whether it didn’t reflect a quest for meaning, at the expense of information, along the lines of the mythos/logos distinction drawn by Karen Armstrong in “The Battle For God.” Lewandowsky agreed. “One of the aspects of **conspiratorial thinking** is — paradoxically — that it **gives people a sense of control because it gives meaning to apparent randomness**. It may be more comforting to some people to think that 9/11 was an “inside job” than accepting that it was a fairly random event triggered by a few fanatics.” Even more in line with Armstrong’s thinking, he added, “I also think that **there is a lot of identity politics** in this**, e.g., if Republicans generally think that climate change is a hoax,** then **it becomes a ‘tribal totem’ for others to pick up on this**.” As a further refinement, I noted that conspiracist ideation thrives on creating specific malicious others as a particuarly powerful form of meaning-making. “Yes, absolutely,” Lewandowsky responded. “There is this tension between ‘victim’ and ‘hero’ within the conspiracist worldview that leads to those contradictory positions. On the one hand (the ‘hero’ frame) it is permissible to accuse scientists of fraud and harass them, but by the same token (‘victim’ frame) scientists must do nothing to cast aspersions on the accusers or to defend themselves. Arthur Koestler has referred to those people as ‘mimophants.’ It is crucial for the public to understand this.” With these insights in mind, the experience of what happened with “Recursive Fury” becomes a tremendous learning opportunity — though, as Nuccitelli points out, it’s an opportunity that’s been repeatedly missed in the past.

# Theory Frontlines

## General T Frontline

### Prioritizes EP Over RE

The PP prioritizes EP over RE.

**Schettler and Raffensperger 4** write[[3]](#footnote-3)

With the rapid growth of industrialization beginning in the 1850s, **humans have increasingly dominated** the earth’s **ecosystems** in unprecedented ways. From the black smog of Charles Dickens’ London to the massive damming projects in China, the scale of change has expanded rapidly and dramatically during the past 150 years. Population growth and human **activities such as resource extraction**, manufacturing, transport, agriculture and fishing **have escalated these changes and contributed to serious**, widespread **and often avoidable harm** to humans, wildlife and ecosystems. The planetary scope of these effects is apparent in climate change; stratospheric ozone depletion; fundamental shifts in the biogeochemical cycling of water, nitrogen and heavy metals; air, soil and water pollution; worldwide degradation of forests, coral reefs and fisheries; loss of biodiversity; and contamination of virtually all organisms and ecosystems with novel synthetic chemicals (Lubchenco, 1998; Johnson, Revenga & Echeverria, 2001; McCally, 2002). A cascade of effects is also apparent in changing patterns of acute and chronic diseases and disabilities. People do not experience the effects of these changes equally. Children are uniquely susceptible to many types of environmental exposure, nutritional deficit, infectious disease and social upheaval, especially during specific periods of development. Large populations in **developing countries** and groups within industrialized countries **are vulnerable when inadequate resources**, social and political institutions and exploitation or marginalization **limit their ability to respond to changing circumstances**. As a result, the risks and benefits of human enterprise are unequally and unjustly distributed. This chapter discusses the precautionary principle as a tool to help in decision-making when people face the **uncertainty** that **so often characterizes complex ecological systems**. We describe the new ecological reality that has emerged since the industrial revolution and argue that **the p**recautionary **p**rinciple **is** a **key** tool **for managing** health and **environmental well-being in this context.**

### Topic Education

Debating about the PP is key to topic education.

**Schettler and Raffensperger 4** write[[4]](#footnote-4)

**Proof is a value-laden concept that integrates** statistics, **empirical observation, inference**, research design **and research** agendas **in**to **a political** and social **context.** This section discusses the uses and misuses of some of the criteria commonly used to establish proof. Strict criteria may be useful for establishing “facts”, but by the time a fact or causal relationship has been established by rigorous standards of proof, considerable avoidable harm may already have occurred. The effects of lead exposure on children’s brain development or asbestos on lung cancer risk are examples. In each case, people were damaged over many decades, long after substantial evidence of serious health effects was established, while lead and asbestos advocates contested epidemiological “proof” of causation. **Guided by the p**recautionary **p**rinciple**, people are** as **concerned with** the weight of the available evidence as they are with establishing facts by **rigorous standards of proof**. The weight of the evidence can guide preventive action, whereas waiting for proof may allow damage to occur. By convention, a considerable amount of consistent evidence is necessary to establish factual “proof” of a cause-and-effect relationship. Traditionally, in a study of the relationship between two variables, a correlation is said to be statistically significant only if the results show the two to be linked, 5. Why is a precautionary approach needed? 71 independent of other factors, with greater than 95% likelihood that the positive results of the study did not occur by chance. But correlation does not establish causation. In epidemiology, a series of additional criteria, for example, those of Hill (1965), are usually added before causation can be claimed. Hill criteria include not only establishment of a statistically significant correlation between two variables but also require that the causal variable precede the effect, a dose–response relationship, elimination of sources of bias and confounding, coherence with other studies and understanding of a plausible biological mechanism. Tobacco smoking, for example, was known to be associated with lung cancer for more than 50 years before a plausible biological mechanism was finally described. At that point, denying that tobacco “causes” cancer became impossible. People’s adherence to conventions or choices among criteria expresses their willingness to make type I or type II errors. A type I error is the mistake of concluding that an association or phenomenon exists when, in truth, it does not. Conversely, a type II error is the mistake of failing to recognize an association or phenomenon when it does exist. Each kind of error has consequences. Type II errors may, for example, lead people to allow a harmful activity to go forward and are the inevitable result of a consistent bias towards avoiding type I errors. Type I errors will result in invalid concerns about a product or activity and may lead to unnecessary restrictions. Establishing type I and type II error rates is a choice that reflects certain biases and is largely done by convention, often without considering the consequences. For example, by convention, interpretations of scientific data generally favour type II over type I errors. People generally require strong evidence that something is scientifically “true” before being willing to say so. An historical basis for error bias **A general theme that has gained currency** in many countries **is that people** are autonomous individuals who **are free** to live as they wish and **do as they want, provided that they do not cause harm to others.** This concept has set up a tension between the individual and society at large in terms of establishing the limits of tolerance and defining harm. In On Liberty, first published in 1859, John Stuart Mill (1978 (1859)) explored the nature and limits of power that can be legitimately exercised by society over the individual. He concluded that the only purpose for which power can be rightfully exercised over any member of a civilized community, against his or her will, is to prevent harm to others. Mill was concerned that, in a democratic society, the majority would set the limits to tolerance – that the majority would interfere with the creative individual’s inclination to invent and develop and to explore new frontiers. He also worried that the majority would go so far as to define “harm”, using inappropriate assertions of “harm” as a blockade to progress. In short, he feared the “tyranny of the majority” and their inclination to favour the status quo. **This** tension **is at the heart of many of today’s policy debates.** Not only must harm be defined but **people** also **have to decide how to act** or how to legitimately exercise power **when** the probability of harm (**risk**) **is uncertain**. Though decisions must be based on what is known at the time, **if “proof”** of harm **is required before** limiting an activity or **choosing an alternative**, as Mill would have, **there is a risk of failing to prevent harm**. Seeing how Mill’s fears are reflected in today’s policies in many countries throughout the world is easy. In general, the burden of proof of harm falls on the general public or individuals who assert that another party has injured them. High standards of “proof” add to this burden, even when the weight of the evidence suggests that harm has occurred or is likely. In other words, a **bias towards type II errors** – established by convention in interpreting scientific data – **has** also **crept into** social, political and judicial **policy. Asking whether such a bias is appropriate for preventing harm** or for choosing among optional human activities **is fully legitimate**. Further, it may be legitimately ask how such a bias is likely to influence the ways that human activities alter complex ecological systems that define the world to be left to future generations **– a consideration at the core of sustainability.**

Topic education has an out of round impact.

**Babb 14** writes[[5]](#footnote-5)

**We’re actually not all that committed to environmentalism** Though it’s fundamentally beyond the scope of this small contribution, there’s probably something to be said about our underlying attitudes toward the environment. Whether we admit it or not, **we are children of a** very **developed world**. We enjoy the products of environmentally-tainted production on a daily basis. **Our economy and freedom of movement are premised on** a series of **planet-dirtying practices**. On some level, **that has to affect our willingness to tell the story of environmentalism**, to re-issue the edicts that publicly temper our very real commitments to development. We’re all aware of what’s happening to the environment, but we’re only sometimes willing to do very much about it. The difference between the Right and Left on this point is far more a function of ideology than output. Despite the stark disagreements between the two sides, **there remains** a **near**ly **universal unwillingness to seriously alter** our **daily routines** on behalf of the environment. What little we do is often done for us by corporations steered by consumer choice. Indeed, the most effort we typically exert on behalf of the environment is choosing one brand over another. **So** maybe **it shouldn’t be** all that **surprising that debaters are choosing strategy over the environment. The topic has given** our community **a ready-made soapbox for** the **reaffirmation of the environmentalist creed.**

### Old CI

Counter-Interp – The aff should defend a holistic prioritization of EP over RE, not a specific policy.

1. The PP lit is not about specific policies. Debating about the PP is key to topic education, that’s Schettler and Raffensperger 4.

Topic education outweighs – it has an out-of-round impact since EP is undervalued now. That’s Babb 14.

2. Predictable limits. Specific policies blow the lid off the topic. There are infinite solvency mechanisms for EP and this topic is already very broad. General principle means negs get stock ground like the fossil fuels DA regardless of the aff.

Predictable limits are key to fairness since negs can’t do in-depth prep against affs if they have to prep 100 case negs.

Limits are an independent voter. **Harris 13** writes[[6]](#footnote-6)

I understand that there has been some criticism of Northwestern’s strategy in this debate round. This criticism is premised on the idea that they ran framework instead of engaging Emporia’s argument about home and the Wiz. I think this criticism is unfair. Northwestern’s framework argument did engage Emporia’s argument. Emporia said that you should vote for the team that performatively and methodologically made debate a home. Northwestern’s argument directly clashed with that contention. My problem in this debate was with aspects of the execution of the argument rather than with the strategy itself. It has always made me angry in debates when people have treated topicality as if it were a less important argument than other arguments in debate. Topicality is a real argument. It is a researched strategy. It is an argument that challenges many affirmatives. The fact that other arguments could be run in a debate or are run in a debate does not make topicality somehow a less important argument. In reality, for many of you that go on to law school you will spend much of your life running topicality arguments because you will find that words in the law matter. The rest of us will experience the ways that word choices matter in contracts, in leases, in writing laws and in many aspects of our lives. Kansas ran an affirmative a few years ago about how the location of a comma in a law led a couple of districts to misinterpret the law into allowing individuals to be incarcerated in jail for two days without having any formal charges filed against them. For those individuals the location of the comma in the law had major consequences. Debates about words are not insignificant. Debates about what kinds of arguments we should or should not be making in debates are not insignificant either. **The limits debate** is an argument that **has real** pragmatic **consequences.** I found myself earlier this year judging Harvard’s eco-pedagogy aff and thought to myself—I could stay up tonight and put a strategy together on eco-pedagogy, but then I thought to myself—why should I have to? Yes, **I could put together a strategy against any random argument** somebody makes employing an energy metaphor **but** the reality is **there are only so many nights to stay up all night researching. I would like to** actually spend time **play**ing **catch** with my children occasionally or maybe even **read a book or go to a movie** or spend some time with my wife. **A world where there are** an **infinite** number of **affirmatives** is a world where the demand to have a specific strategy and not run framework is a world that **says this community doesn’t care whether** its **participants have a life** or **do well in school or spend time with their families.** I know there is a new call abounding for interpreting this NDT as a mandate for broader more diverse topics. The reality is that will create more work to prepare for the teams that choose to debate the topic but will have little to no effect on the teams that refuse to debate the topic. Broader topics that do not require positive government action or are bidirectional will not make teams that won’t debate the topic choose to debate the topic. I think that is a con job. I am not opposed to broader topics necessarily. I tend to like the way high school topics are written more than the way college topics are written. I just think people who take the meaning of the outcome of this NDT as proof that we need to make it so people get **to talk about anything** they want to talk about **without having to debate** against **t**opicality or framework arguments are interested in constructing a world that **might make debate an unending nightmare** and not a very good home in which to live. **Limits**, to me, **are a real impact because I feel their impact** in my **everyday** existence.

3. Textuality. The counter-interp is the most accurate framing of the topic; that’s Nebel 14. Textuality comes first under fairness. It controls the internal link to predictability and ground.

4. Environmental philosophy education. There’s lots of lit about philosophies like deep ecology or thought experiments like the non-identity problem that have nothing to do with specific policies. Forcing me to defend that a specific policy is good trades off with debating about those.

5. In-depth education. Not specifying a policy is key to fleshed out debates about general issues like the resource curse instead of spreading ourselves too thin by debating about multiple country-specific issues.

6. Real world education. I discuss environmental problems that have global implications, e.g. global warming and acid rain. Their interp forces country-specific discussions like Somali overfishing which don’t apply to our daily lives.

Education is a voter since it’s the end-goal of debate. Substance doesn’t matter unless there’s an educational benefit to discussing it. Vote on education independently of the RVI. If the PP is key to education, vote aff to promote a norm.

## AT Specific Policy Bad Standards

### AT Advocacy Shift

1. CX checks shiftiness.

2. Ex post facto theory solves. If I do shift, you could read theory in the 2NR.

3. TURN – Defending the PP is key to stable advocacy. It’s defined according to the Wingspread Statement which is accepted throughout the lit.

4. TURN – General principle is key to stable advocacy. Defending a specific policy means I could avoid disads on small technicalities.

5. Defending a specific policy can’t solve. Details are inevitably left out due to time limits.

6. No link to fairness. Framework debate solves the abuse.

### AT Ground

1. No abuse. You still get generic disads.

2. TURN – Specific disad ground is bad. That gives him infinite neg prep, and I can’t predict all of them.

3. Specific disad ground isn’t key. There are plenty of NCs you can read.

4. No impact. Neg wins most rounds anyway.

5. My advocacy text is pretty much the topic. If it’s not enough for you to link offense, that’s a problem with how the topic was written, not my aff specifically.

### AT Predictability

1. Wiki solves predictability. It’s the TOC. I’ve been reading PP for five months, so you should have cards by now.

2. TURN – General principle is most predictable since everyone knows the resolution beforehand whereas debaters can’t predict every solvency mechanism for EP.

3. TURN – PP is key to predictability. It addresses issues that are at the heart of many real-world policy debates about the environment.

4. Prep time solves. You can think of answers then.

### AT Real World

1. TURN – Not specifying a country is better for teaching about the real world. Most environmental problems are global in nature.

2. Philosophy education outweighs.

**Shammas 12** writes[[7]](#footnote-7)

The past year gives one the suspicion that American society is dysfunctional. Our **Congress is useless**, our institutions inept. **Faced with the terror of existence, young men** like Adam Lanza **react with violence. Faced with** manageable problems such as **a "fiscal cliff," our democracy self-destructs.** Anger is everywhere; understanding is nowhere. Although a **democratic society cannot function unless** its **citizens** are able to **rationally debate** one another, rationality is missing from American politics. We assail our political enemies with intractable opinions and self-righteous anger. An ugly bitterness pervades everything. Meanwhile, our country is slowly but surely committing suicide. It seems to me that this dysfunctional political dialogue, which stems from the iron certainty we grant our opinions, is the most pressing problem confronting 21st century America. In fact, it is a crisis. For without the ability to carry on a useful dialogue, we cannot solve our greatest challenges, or even our smallest ones. This raises the question: How can we solve this crisis? Because the capacity to debate requires the capacity to think, I believe the answer lies in philosophy. Why philosophy? Because the study of **philosophy**, the "love of wisdom," creates and **nurtures thoughtful minds**, minds **that can** -- as Aristotle suggests -- **entertain a thought without accepting it.** With a philosophic worldview, a Republican who despises any tax increase or economic stimulus could at least consider the notion of tax hikes or Keynesian economics. A Democrat facing antithetical ideas could do likewise. Thought rather than anger could become the default response to opposing worldviews. Indeed, philosophy can do a great deal to lessen the anger that is growing like a cancerous tumor in modern America. The tools exist in both Eastern and Western thought -- in the Stoic exhortation to accept the present as it is, in Buddhist meditation, in the Humanist's transcendent appeal to reason, in Kant's categorical imperative. Philosophy can help us inculcate virtue for, in the words of Socrates, "knowledge is virtue." While some philosophies obviously conduce toward peace more than others, while some philosophers (Marcus Aurelius) seem kinder than others (Nietzsche), the open-minded study of different philosophies at least opens one up to the possibility that one is wrong. **One realizes**, like Socrates did, **that knowledge is anything but certain**, that true wisdom lies in realizing how much one does not know, in understanding that our knowledge of the universe (and therefore of earthly things like politics) is utterly inadequate, perhaps comparable to the area of a pin's tip against a table. **This** realization **makes one less angry** when confronted **with opposing views**, replacing counterproductive anger with productive curiosity. Despite the benefits of the philosophic mindset, we do not cultivate this mindset in our children. In fact, **philosophy is** almost entirely **absent from** American **schools.** For example, there is no AP (Advanced Placement) Philosophy course. While some high schoolers may have heard of Socrates, Plato, or Aristotle, most do not truly understand their philosophies -- much less the philosophies of men like Descartes, Schopenhauer, or Nietzsche. This is shameful, because a person who does not understand the history of thought does not understand the rationality behind our political system. The first time I read a philosopher was not until my first semester of college. My professor assigned Plato's Republic, and while at first I (admittedly) did not understand anything, eventually I became absolutely enamored with this incredible man. Here was a person who had thought about so many of the same things I had, albeit thousands of years ago and with much more sophistication than I could ever muster. What is justice? What is truth? Why do people suffer? Is there an afterlife? These are the questions that children ask their parents, the questions that scare us most, and perhaps because of this fear we do not consider them when we grow up. I think this is a great mistake. We should consider these questions. For by reading philosophy, I became less frightened of them. I no longer shirked away from contemplating death (thanks Epicurus) or morality (thanks Kant) or misfortune (thanks Epictetus). More, I realized that anger -- in both politics and everyday life -- is largely a reaction to fear, and that this fear can be lessened exponentially through the sort of reflection philosophy fosters. I don't know why philosophy isn't taught in high school. Perhaps the subject seems too esoteric or pretentious. Perhaps there is a fear that philosophy could encroach on the sort of questions religion purports to answer -- "how should one live," "how should one die," and so on. Some parents may feel uncomfortable with the idea of their children receiving answers to "the big questions" from Socrates and Plato as well as from Jesus and Paul. This fear is unfounded. In general, philosophy does not squander religion; it merely exhorts one to understand the world by opening one's mind. It encourages one to consider multiple possibilities (unlike our politicians), only accepting the possibility that appeals to one's innate sense of reason. In a diseased society that is filled with so much anger and bitterness -- indeed, with so much madness -- we could do worse than expose our children to philosophy. In fact, such exposure would teach our children to react to problems with an inquisitive rather than angry mind -- a concept that the children in Congress have not yet grasped. To those who say philosophy is impractical (and thus that learning how to think is impractical) I say: nonsense. Our society is dysfunctional because we have forgotten how to think, if we ever truly knew how to think at all. Although we as a society believe we are in possession of all truth, we are not. To study philosophy is to learn how woefully ignorant we are, and this knowledge can perhaps teach us humility, can perhaps suggest to us that the other side may have some value after all. So my point is this: **Our** diseased **political system is in dire need** of a hefty dose **of philosophy, and the best way** to inject this dose into American society **is** to start at the stem -- **to raise** our **children to have a philosophic mindset** by teaching philosophy in schools. In the process we will, slowly but surely, be raising Americans who possess the capacity to respond to problems with inquisitive rather than angry minds, perhaps ending this suicidal gridlock.

3. TURN – Specifying a country isn’t real world. Most environmental decisions are made through multilateral agreements, e.g. the Montreal Protocol and Kyoto.

### AT Homogenizing

1. All EP policies aim to protect the environment, so general principle doesn’t arbitrarily group DCs.

2. Non-unique. Timed speeches means leaving out details is inevitable.

3. Experts in the topic lit discuss the PP as a general rule which means you should be skeptical that this is an issue.

## AT T- Country Spec

Counter-Interp – The aff should not specify a country.

1. Debating about the PP is key to topic education.

**Schettler and Raffensperger 4** write[[8]](#footnote-8)

**Proof is a value-laden concept that integrates** statistics, **empirical observation, inference**, research design **and research** agendas **in**to **a political** and social **context.** This section discusses the uses and misuses of some of the criteria commonly used to establish proof. Strict criteria may be useful for establishing “facts”, but by the time a fact or causal relationship has been established by rigorous standards of proof, considerable avoidable harm may already have occurred. The effects of lead exposure on children’s brain development or asbestos on lung cancer risk are examples. 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But correlation does not establish causation. In epidemiology, a series of additional criteria, for example, those of Hill (1965), are usually added before causation can be claimed. Hill criteria include not only establishment of a statistically significant correlation between two variables but also require that the causal variable precede the effect, a dose–response relationship, elimination of sources of bias and confounding, coherence with other studies and understanding of a plausible biological mechanism. Tobacco smoking, for example, was known to be associated with lung cancer for more than 50 years before a plausible biological mechanism was finally described. At that point, denying that tobacco “causes” cancer became impossible. People’s adherence to conventions or choices among criteria expresses their willingness to make type I or type II errors. A type I error is the mistake of concluding that an association or phenomenon exists when, in truth, it does not. Conversely, a type II error is the mistake of failing to recognize an association or phenomenon when it does exist. Each kind of error has consequences. Type II errors may, for example, lead people to allow a harmful activity to go forward and are the inevitable result of a consistent bias towards avoiding type I errors. Type I errors will result in invalid concerns about a product or activity and may lead to unnecessary restrictions. Establishing type I and type II error rates is a choice that reflects certain biases and is largely done by convention, often without considering the consequences. For example, by convention, interpretations of scientific data generally favour type II over type I errors. People generally require strong evidence that something is scientifically “true” before being willing to say so. An historical basis for error bias **A general theme that has gained currency** in many countries **is that people** are autonomous individuals who **are free** to live as they wish and **do as they want, provided that they do not cause harm to others.** This concept has set up a tension between the individual and society at large in terms of establishing the limits of tolerance and defining harm. In On Liberty, first published in 1859, John Stuart Mill (1978 (1859)) explored the nature and limits of power that can be legitimately exercised by society over the individual. He concluded that the only purpose for which power can be rightfully exercised over any member of a civilized community, against his or her will, is to prevent harm to others. Mill was concerned that, in a democratic society, the majority would set the limits to tolerance – that the majority would interfere with the creative individual’s inclination to invent and develop and to explore new frontiers. He also worried that the majority would go so far as to define “harm”, using inappropriate assertions of “harm” as a blockade to progress. In short, he feared the “tyranny of the majority” and their inclination to favour the status quo. **This** tension **is at the heart of many of today’s policy debates.** Not only must harm be defined but **people** also **have to decide how to act** or how to legitimately exercise **power when** the probability of harm (**risk**) **is uncertain**. Though decisions must be based on what is known at the time, **if “proof”** of harm **is required before** limiting an activity or **choosing an alternative**, as Mill would have, **there is a risk of failing to prevent harm**. Seeing how Mill’s fears are reflected in today’s policies in many countries throughout the world is easy. In general, the burden of proof of harm falls on the general public or individuals who assert that another party has injured them. High standards of “proof” add to this burden, even when the weight of the evidence suggests that harm has occurred or is likely. In other words, a **bias towards type II errors** – established by convention in interpreting scientific data – **has** also **crept into** social, political and judicial **policy. Asking whether such a bias is appropriate for preventing harm** or for choosing among optional human activities **is fully legitimate**. Further, it may be legitimately ask how such a bias is likely to influence the ways that human activities alter complex ecological systems that define the world to be left to future generations **– a consideration at the core of sustainability.**

Topic education has an out of round impact.

**Babb 14** writes[[9]](#footnote-9)

**We’re actually not all that committed to environmentalism** Though it’s fundamentally beyond the scope of this small contribution, there’s probably something to be said about our underlying attitudes toward the environment. Whether we admit it or not, **we are children of a** very **developed world**. We enjoy the products of environmentally-tainted production on a daily basis. **Our economy and freedom of movement are premised on** a series of **planet-dirtying practices**. On some level, **that has to affect our willingness to tell the story of environmentalism**, to re-issue the edicts that publicly temper our very real commitments to development. We’re all aware of what’s happening to the environment, but we’re only sometimes willing to do very much about it. The difference between the Right and Left on this point is far more a function of ideology than output. Despite the stark disagreements between the two sides, **there remains** a **near**ly **universal unwillingness to seriously alter** our **daily routines** on behalf of the environment. What little we do is often done for us by corporations steered by consumer choice. Indeed, the most effort we typically exert on behalf of the environment is choosing one brand over another. **So** maybe **it shouldn’t be** all that **surprising that debaters are choosing strategy over the environment. The topic has given** our community **a ready-made soapbox for** the **reaffirmation of the environmentalist creed.**

2. Limits. Specifying a country justifies infinite affs since there are 140+ developing countries and numerous solvency mechanisms for EP. This kills any stable basis for pre-round prep.

Limits are an independent voter. **Harris 13** writes[[10]](#footnote-10)

I understand that there has been some criticism of Northwestern’s strategy in this debate round. This criticism is premised on the idea that they ran framework instead of engaging Emporia’s argument about home and the Wiz. I think this criticism is unfair. Northwestern’s framework argument did engage Emporia’s argument. Emporia said that you should vote for the team that performatively and methodologically made debate a home. Northwestern’s argument directly clashed with that contention. My problem in this debate was with aspects of the execution of the argument rather than with the strategy itself. It has always made me angry in debates when people have treated topicality as if it were a less important argument than other arguments in debate. Topicality is a real argument. It is a researched strategy. It is an argument that challenges many affirmatives. The fact that other arguments could be run in a debate or are run in a debate does not make topicality somehow a less important argument. In reality, for many of you that go on to law school you will spend much of your life running topicality arguments because you will find that words in the law matter. The rest of us will experience the ways that word choices matter in contracts, in leases, in writing laws and in many aspects of our lives. Kansas ran an affirmative a few years ago about how the location of a comma in a law led a couple of districts to misinterpret the law into allowing individuals to be incarcerated in jail for two days without having any formal charges filed against them. For those individuals the location of the comma in the law had major consequences. Debates about words are not insignificant. Debates about what kinds of arguments we should or should not be making in debates are not insignificant either. **The limits debate** is an argument that **has real** pragmatic **consequences.** I found myself earlier this year judging Harvard’s eco-pedagogy aff and thought to myself—I could stay up tonight and put a strategy together on eco-pedagogy, but then I thought to myself—why should I have to? Yes, **I could put together a strategy against any random argument** somebody makes employing an energy metaphor **but** the reality is **there are only so many nights to stay up all night researching. I would like to** actually spend time **play**ing **catch** with my children occasionally or maybe even **read a book or go to a movie** or spend some time with my wife. **A world where there are** an **infinite** number of **affirmatives** is a world where the demand to have a specific strategy and not run framework is a world that **says this community doesn’t care whether** its **participants have a life** or **do well in school or spend time with their families.** I know there is a new call abounding for interpreting this NDT as a mandate for broader more diverse topics. The reality is that will create more work to prepare for the teams that choose to debate the topic but will have little to no effect on the teams that refuse to debate the topic. Broader topics that do not require positive government action or are bidirectional will not make teams that won’t debate the topic choose to debate the topic. I think that is a con job. I am not opposed to broader topics necessarily. I tend to like the way high school topics are written more than the way college topics are written. I just think people who take the meaning of the outcome of this NDT as proof that we need to make it so people get to talk about anything they want to talk about without having to debate against topicality or framework arguments are interested in constructing a world that might make debate an unending nightmare and not a very good home in which to live. **Limits**, to me, **are a real impact because I feel their impact** in my **everyday** existence.

## AT T- Pollutants

I meet.

Resource conservation aims to reduce pollution. **Stirling and Tickner 4** write[[11]](#footnote-11)

The application of **prevention and precaution represent important steps towards** achieving the long-term goal of **sustainable development**. According to the World Commission on Environment and Development (1987), rather than being a static formula, sustainable development is a process of change in which exploitation of resources, investment, technology and institutional policies are made consistent with present as well Stirling & Tickner 200 as future needs. It is solution-oriented, emphasizing a longterm view for improving the quality of life for everyone. It focuses on equity, including ensuring the rights of poor people and future generations. It stresses qualitative development over quantitative growth. Like precaution and prevention, the challenge of sustainable development requires systems thinking – understanding the interactions between the environment, economy and society so as to identify root causes of degradation and focus on more sustainable patterns of production and consumption that can leave a safer, cleaner and more economically prosperous world for the future. Annex Tools for applying precaution and prevention in practice Cleaner production and preventing pollution **Cleaner production and preventing pollution involve** changes to production systems and **products to reduce pollution at the source** (**in the production process** or during product development). **This includes reducing** the **raw material,** energy **and natural resource inputs** (dematerialization) as well as reducing the quantity and harmful characteristics of toxic substances (detoxification) used in production systems and products (Jackson, 1993; Geiser, 2001). A central aspect of cleaner production is understanding the service that a production system or product provides and seeking out safer alternatives to provide that same service (for example, chlorinated solvents provide degreasing, and pesticides control pests). Many countries – including many countries in transition – have established cleaner production programmes, which have demonstrated success in reducing industrial and product-related pollution, while reducing costs and improving productivity.

I meet.

The PP is codified in the Stockholm Convention on Pollutants.

**WHO 4** writes[[12]](#footnote-12)

During the past three years **there have been significant developments in** the **interpretation** and application **of the p**recautionary **p**rinciple, particularly by the European Court of Justice (ECJ), the World Trade Organization (WTO), WHO and some of its Member States. For example, the ECJ cases on antibiotics in animal feed, the European Environment Agency’s report Late lessons from early warnings (European Environment Agency, 2001), and the scientific and constitutional discussions on the precautionary principle in France have all considerably enriched debates on its use and application. In addition, **some of these** developing **insights have been codified in international agreements** signed since 2000, **notably** the Cartagena Protocol on Biosafety (Secretariat of the Convention on Biological Diversity, 2000 ) and **the Stockholm Convention on** Persistent Organic **Pollutants** (United Nations Environment Programme, 2001). Some of these efforts have raised questions as to how application of the precautionary principle can more effectively stimulate decisions aimed at protecting health and ecosystems under conditions of uncertainty, while stimulating innovation in science, technology and policy.

# Substance Frontlines

## AT Tech Innovation DA

1. The PP isn’t anti-tech and is key to recognizing that innovation is political.

**Stirling 13** writes[[13]](#footnote-13)

Precaution is arguably one of the most misunderstood and misrepresented issues in the global politics of science and technology. Misunderstood, because **precaution is** so often **wrongly asserted to be** unscientific or **anti-tech**nology. Misrepresented, because a large part of the resulting stigma can be a systematic – even deliberate – effect of power. Powerful interests behind a particular innovation can understandably get pretty exercised when challenged by precautionary concerns over their favoured new technology. But these highly partisan commotions need not provoke such existential angst across society as a whole. **Precaution does not necessarily mean a ban. It** simply **urges that time and space be found to get things right**. To see the value of this, we can start by considering history. Take, **for** example, **asbestos, lead**, benzene, pesticides, ozone-depleters **or overfishing**. In all these areas and many more, early precautionary action was dismissed as irrational by governments, business and scientific establishments alike – claiming there were no alternatives. Yet now, it is agreed on all sides of the debate that **levels of risk were** initially quite **significantly understated. And**, in retrospect, **there were more viable substitutes** than were claimed at the time. Similar questions arise in forward-looking dilemmas of technology choice; around alternatives to nuclear power or GM food, for example. In a nutshell, precaution reminds us that **innovation is not a forced one-track race** to the future. Instead – like biological evolution – **tech**nological **progress** entails constantly branching paths. Though often concealed behind science, each **involves** intrinsically **political choices. This requires understanding**, rather than denial, **of** the real nature of **uncertainty**. Although there exist many versions of precaution, the general gist is that, where there are threats to human health or environment, scientific uncertainty is not a reason for inaction. This does not compel a particular action. It merely reminds us that lack of evidence of harm, is not the same thing as evidence of lack of harm. In other words, the crux of precaution lies in the rigour of taking similar care in avoiding the scientific error of mistakenly assuming safety, to avoiding mistakenly assuming harm.

2. FDA proves. PP isn’t anti-tech. **Sachs 11** writes[[14]](#footnote-14)

Critics often paint Strong Precaution as a new kid on the block, a yet-to-be-tried alternative to cost-benefit analysis, or an exotic import from Europe that has not been embraced in the United States.107 These attempts at delegitimization fail to recognize that **the Strong P**recautionary **P**rinciple already **operates successfully in U.S. law**. From Capitol Hill to state houses, legislators have frequently (and sensibly) turned to ex ante gatekeeping mechanisms to protect public health and the environment against serious risk. **The FDA’s review process for new drugs is a prime example**. Under the Federal Food, Drug, and Cosmetic Act,108 all substances meeting the definition of a drug109 are presumptively banned from sale in the United States, unless the manufacturer produces relevant data on risks, side effects, and efficacy; conducts clinical trials; and receives affirmative FDA approval for sale.110 **In this system, the FDA stands in the exact gatekeeping role called for by the** Strong **P**recautionary **P**rinciple. Indeed, the FDA’s new drug review system can be viewed as a particularly potent form of Strong Precaution, because the **precaution**ary measure **implemented as a response to serious threats to** human **health from untested drugs is** a **complete prohibition**. That prohibition, backed by criminal penalties,111 remains in place (without any cost-benefit analysis) **until the drug manufacturer can** overcome the default and **carry its burden of proof** on safety and efficacy.112 **Belying the argument that a gatekeeping role** for government **is inherently** anti-science or **anti-tech**nology**, the U**nited **S**tates **has maintained this** FDA review **process** for decades **while also developing the most innovative** and profitable **pharmaceutical industry in the world**. As noted above, some critics point to antibiotics as the leading example of a useful product that would have been squelched if the United States had embraced Strong Precaution decades ago.113 But pharmaceutical manufacturers have developed life-saving antibiotics since the 1940s and will continue to do so, within a regulatory system that reflects Strong Precaution. 114 Allocation of the burden of proof to drug manufacturers has neither extinguished the market for, nor the supply of, life-saving antibiotics. The EPA’s registration system for pesticides is another example of a Strong Precautionary approach to risk regulation. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA),115 a pesticide manufacturer carries both the burden of production (compiling data on health and environmental effects of pesticides proposed for registration) and the burden of persuasion, showing that the pesticide complies with specific statutory standards, including that “it will perform its intended function without unreasonable adverse effects on the environment.”116 EPA’s role is to review the submitted risk data, determine whether the applicant has met the statutory criteria, and if so, approve labeling language and any use restrictions.117 The regulatory default, in advance of the pesticide manufacturer meeting its burden of proof, is to prohibit the introduction of the new pesticide.118 The rationale for EPA preapproval for pesticides and FDA preapproval for new drugs is similar: to prevent serious harm by requiring risk assessment, data disclosure, and agency review of risks before the product is placed into widespread circulation. In arguing for a shift in the burden of proof under TSCA, I am suggesting aligning chemical regulation more closely with these two older models of risk regulation.

## AT CBA CP

1. Perm, do both – solves better. It’s the most pragmatic way to deal with uncertainty.

**Sachs 11** writes[[15]](#footnote-15)

This standard of proof can be set in a variety of ways, just as governing risk standards vary considerably in current public health and environmental statutes, which may prescribe specific safety technologies, set performance benchmarks, impose cost-benefit tests, or set minimal health-based standards.135 In some cases, policy makers might choose to adopt a cost-benefit test within a Strong Precautionary framework, requiring the applicant to show that the benefits of its activity outweigh potential harms. **The** Strong **P**recautionary **P**rinciple **is not necessarily antithetical to c**ost**-b**enefit **a**nalysis, though it has often been framed this way in the literature. Under a Strong Precautionary framework, cost-benefit analysis could still be conducted, **but it would be the applicant, rather than the government, who would carry** both **the** analytical **burden of conducting the analysis** and the burden of persuasion**. Util**itarian **welfare maximization would remain the ultimate goal** of the process**, but in contrast to the way c**ost-**b**enefit **a**nalysis **is traditionally performed**, some ex ante precautionary restrictions would be imposed on the activity until the applicant has met its burden to prove that the activity is worth the risks. There are many options other than cost-benefit balancing that could be used to implement the Strong Precautionary Principle in concrete legislation. **In situations where** both the probability of harm and the nature of the **outcomes are uncertain, cost-benefit balancing is accomplished** only **through** heroic **modeling assumptions that obscure** the **underlying** uncertainties and **value choices**.136 **Cost-benefit analysis also deals awkwardly with** equity concerns, including **inter-generational equity**. It sends a “go” signal to activities that may externalize billions of dollars in health costs on a population, as long as the related benefits in corporate profits and employment are higher than the expected costs. This Article is not meant as a comprehensive critique of cost-benefit analysis, but it does highlight why **it is appropriate to establish precautionary risk management** regimes that do not rest on such analysis—**and not just for** a narrow class of **“catastrophic” risks**.137 Utilitarian welfare maximization need not be the driving goal of every regulatory regime, and the Strong Precautionary Principle can incorporate a wider variety of goals and values. For example, a statute might require the applicant to prove that the proposed activity will not cause substantial harm to human health, that it will incorporate bestavailable safety or pollution control technology, or that it will not substantially harm significant ecosystems.138 In the hazardous waste context, the Principle would not forbid a firm from engaging in long-term storage of hazardous waste nor would it require complex cost-benefit balancing for each individual storage facility. Rather, the Principle, quite sensibly, would impose a default prohibition on long-term hazardous-waste storage until the firm can demonstrate, *ex ante*, that the storage will be conducted safely—meaning in accordance with prescribed standards for construction, monitoring, financial security, labeling, and emergency response. **The Principle is contextual and pragmatic. It allows policy makers to** assess the seriousness of risks and to **develop appropriate responses** **in a much more qualitative way** than staunch advocates of a costbenefit test would tolerate.

2. Numerical risk analysis leads to uncertainty denial. The PP recognizes uncertainty which is key to scientific rigor and democracy.

**Stirling 13** writes[[16]](#footnote-16)

This in turn hinges on a crucial technical distinction between risk and uncertainty. Risk is a state of knowledge where we feel confident in assigning numerical probabilities. In conventional risk assessment, the onus, burden and levels of proof typically fall most heavily on those concerned about a particular pathway, or who prefer alternatives. The balance of emphasis tends to favour those products with most powerful backing. Precaution offers to level the playing field by inviting a focus not only on risk, but also on uncertainty. Whether due to incomplete evidence, complexity, divergent values, scientific disagreement, gaps in knowledge or the simple possibility of surprise – **uncertainties cannot be reduced to neat** numerical **probabilities. But they are still crucial** to rational consideration – and there are plenty of practical ways to deal with them (pdf). Under uncertainty, then, it is not merely difficult in practice to calculate some single definitive "sound scientific" "evidence based" solution. The point is, it is irrational even to try, let alone claim, this. The notion of exclusively science-based decisions under uncertainty is an oxymoron. How has such confusion come about? **Uncertainties**, after all, **are among the most important driving forces in science**. A typical scientist is well aware of the uncertainties in their field, often strongly motivated by them. Reasoned scepticism and open disagreement about uncertainties, are among the most crucial distinguishing qualities of science. Yet **when science comes into contact with economic and political power, there develops** astrange kind of **uncertainty denial**. This brings us back at the end, to where this blog began. In order to understand the rhetorical intensity of so much opposition to precaution, we need to look behind the methodological technicalities and consider the powerful political forces and high economic stakes that often hinge on the outcomes. It is with some sympathy for beleaguered decision makers in business or regulation, that we can understand the often-overwhelming political pressures to justify decisions. This can mean building "policy-based evidence" to assert some pre-decided outcome. Or it can merely mean pressuring an artificially unambiguous "evidence base" for justifying any firm decision at all. In a myriad ways this **pressure incentivises** analysts and independent **expert advisers to sidestep precaution and produce more** apparently **confident and precise** "risk-based" **prescriptions than** their **better judgement might suggest**. It is not necessary to envisage any conspiracy or bad faith. The effect is more like iron filings lining up in the magnetic field of power. Either way, it is this **pressure for justification** that **explains** why the **animosity to precaution** extends beyond the partisan advocates of particular uncertain technologies, to political debates in general. But, in the end, the picture is quite optimistic. Far from the pessimistic caricature, precaution actually celebrates the full depth and potential for human agency in knowledge and innovation. Blinkered risk assessment ignores both positive and negative implications of uncertainty. Though politically inconvenient for some, precaution simply acknowledges this scope and choice. So, while **mistaken rhetorical rejections** of precaution **add further poison to current political tensions** around technology, **precaution itself offers an antidote** – one that is in the best traditions of rationality. By **upholding** both **scientific rigour and democratic accountability** under uncertainty, precaution offers a means to help reconcile these increasingly sundered Enlightenment cultures.

3. CBA encourages cognitive biases that kill climate change reform. The PP solves. **Dana 9** writes[[17]](#footnote-17)

Critics of the PP have argued that it is indeterminate and hence basically useless because it can never reveal how much precaution is due in a given case. But many principles and practices are indeterminate in their precise results and policy implications.23 As long as invocation of the PP will draw more attention to huge costs associated with highly uncertain but terrible scenarios, and as long as we believe that heuristic biases will otherwise cause too little attention to be paid to those scenarios, invocation of the PP in the climate change context helpful in producing a more balanced discourse — whatever the ultimate policy choices. Invocation of **the PP, by itself, may be enough to balance** the **policy discourse on climate change**, even if policymakers continue to use traditional quantified CBA, and just include a numerical probability for catastrophic climate change in the absence of regulatory action and a numerical estimate of the expected costs of such catastrophic change. The PP can serve as a means of framing the quantitative CBAs as only a partial and potentially misleading picture of the danger of choosing regulatory inaction. **A** more aggressive but nonetheless **justifiable deployment** of the PP **would be to use it as part of the rationale for not quantifying** the **probability and expected costs of catastrophic scenarios.** This refusal to quantify could be scientifically justified given how little we know about the real probability distribution of catastrophic scenarios.24 **It would** also **counteract the tendency to overweigh** the **certain costs of prevention** and mitigation**, and** to excessively discount or **ignore** the **future costs from** regulatory **inaction**. Why would leaving open-ended (and hence ambiguous) the probability of catastrophic climate change scenarios be likely to result in a relatively heavier weighing of the uncertain costs than would probably occur if some sort of numerical probability distribution were assigned to catastrophic scenarios? From a pure rational choice perspective, perhaps it should not occur. The **psychological lit**erature nevertheless **suggests that** while people are risk-seeking in the avoidance of certain losses as against the avoidance of possible losses when there is numerical probability or probability distribution for the possible losses, people are risk-seeking in the avoidance of truly ambiguous possible losses —that is, losses that are so uncertain that no numerical estimate of the probability or probability distribution of their occurrence is available. Although there is disagreement regarding the definition of "ambiguity" and "ambiguity aversion," the basic idea is that ambiguity is "an intermediate state between ignorance (i.e., complete lack of knowledge) and risk (in which a probability distribution is specified)",25 and that **people are more averse to an ambiguous bet than** to **a quantified risk of loss**. The depth and robustness of the phenomenon of ambiguity aversion is, to be sure, a matter of debate,26 as is the robustness of the tendency for risk-seeking in the avoidance of certain losses. But if people are "irrationally" risk-seeking in avoiding both certain losses and ambiguous losses, then a decision framed as a choice between the avoidance of a certain loss on the one hand and the avoidance of an ambiguous loss on the other may be one where irrational biases cancel out where there is no departure from what rational choice theory would dictate.27 In other words, **where the choice**s **[is] between** the **certain losses** entailed **in prevention** and mitigation efforts **and** the **ambiguous losses** associated **with catastrophic scenarios, heuristic biases may**, on net, **not distort** the **decision-making.**

Prefer my evidence. My author assumes your CBA good indicts. **Dana 9** writes[[18]](#footnote-18)

Is the precautionary principle (PP) incoherent and therefore irrational to use as a guide or tool in policymaking? A number of thoughtful scholars have argued as much, and their arguments, on their own terms, make a good deal of sense. These **scholars**, however, **are arguing about the PP** in the abstract**, asking whether it coheres as a matter of abstract logic, and it** may not – indeed it **probably does not. But the PP does make sense in particular**, and very important, **contexts.** Rather than asking whether the PP is rational in general, we should be asking whether or not there are contexts in which it is rational to use the PP as a policy tool. According to one much-cited formulation, the PP means that "[w]hen an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."1 Different versions of the PP build on the idea of "precautionary measures,” and what this actually means or encompasses. In its strong forms, the PP prescribes that an activity or product posing a risk to human health or the environment should be flatly prohibited until it is scientifically proven that the activity or product, in fact, will not harm human health or the environment. In its weak forms, the PP can take 1 “Wingspread Statement on the Precautionary Principle” (1998), online: <www.gdrc.org/u-gov/precaution- 3.html>. 2 the form of a mere cautious attitude, democratic inclusion, and/or additional efforts at fact-finding, but no particular regulatory prohibitions or restrictions. In academic discourse, the critics of PP tend to emphasize its strong forms, apparently because these forms of PP lead to hard-to-defend results in certain cases. Conversely, academic defenders of PP tend to emphasize its weaker forms, apparently because these forms of PP can be squared with almost any decision and never lead to hard-to-defend results.2 This article defines the PP primarily based on what it is not: it is not quantitative cost-benefit or cost-cost analysis of the sort we associate with the Office of Management and Budget in the United States and U.S. policymaking and policy discourse generally.3 In this definition, the PP is a form of analysis in which the costs of a possible environmental or health risk are not quantified, or if they are, any quantification is likely to be inadequate to capture the full extent of the costs of not taking regulatory measures to mitigate or avoid the risk. So defined, the PP is a more "rational" approach compared to cost-benefit or cost-cost because, in certain contexts, the costs associated with an environmental or health risk will tend to be relatively under-weighed without the application of the PP to account for non-quantifiable risk. After a brief discussion of the rationality and utility of the PP in Part II, this article addresses two important contexts in which it is rational to apply the PP. Part III 2 For a thoughtful overview and treatment of the PP, see Douglass A. Kysar, “It Might Have Been: Risk, Precaution and Opportunity Costs” (2006) 22 J. Land Use & Envtl. L. 1. For a discussion of the definitional issues surrounding the PP, see David A. Dana, “A Behavioral Economic Defense of the Precautionary Principle” (2003) 97 Nw. U. L. Rev. 1315. . 3 For a good comparative discussion of the PP and CBA, see generally Gregory N. Mandel & James Thuo Gathii, “Cost-Benefit Analysis Versus the Precautionary Principle: Beyond Cass R. Sustein’s Law of Fear” (2006) 2006 U. Ill. L. Rev. 1037. 3 examines climate change, especially as it would affect developed northern hemisphere countries, and Part IV discusses emerging nanotechnology, as it is used in a wide array of consumer products. These contexts are very different, and so too is the contextual justification for the PP. **In the context of climate change,** the **heuristic bias** in favour of avoiding certain losses **may lead to an under-weighing of catastrophic scenarios** of climate change, at least in the context of U.S. policymaking. Part III of this article explores how prospect theory (also called loss aversion), ambiguity aversion, cost-benefit analysis (CBA) and the PPT may interact in this context. Part IV discusses the case of emerging technologies, in which the products are developed and marketed by for-profit entities that have strong monetary incentives to explore and document the benefits of the products and much weaker incentives to explore and document any possible adverse environmental or health effects associated with the products. In the CBA framework, regulators tend to weigh known benefits against known costs or at least known risks. So framed, this weighing may pay too little attention to unknown costs and unknown risks that have intentionally not been explored by market actors. In both the cases of climate change and emerging technologies, application of the PP can correct what would otherwise be a tendency to under-weigh the costs of not taking action to prevent or mitigate possible environmental and health risks. The PP can justify directing less attention to “bottom line” quantitative estimates of the costs of unmitigated climate change and more attention to avoiding terrible but highly uncertain 4 climate change scenarios.4 With nanotechnology, the PP can function as a means of focusing less attention on whether or not nanotechnology is harmful or safe given current knowledge and more attention to developing ways to produce more and better knowledge about the risks posed by nanotechnology. **The debate over the PP** versus CBA **has** often **been too abstract** and lacking in context. **A more productive approach would be to** instead **ask** when – **in what contexts** — **does it make sense** to apply the PP and when does it not? This article is an initial contribution to that re-framed debate.

4. Risk analyses are incomplete. The PP is key to incorporating option value into decision-making.

**Grant and Quiggin 13** writes[[19]](#footnote-19)

Introduction **The P**recautionary **P**rinciple**, most commonly presented as a guide to environmental policy** decisions, is widely used, controversial and hard to define precisely. While no exact formulation of the principle has achieved unanimous support, the Precautionary Principle has been widely advocated. The version adopted by the Wingspread Conference (1998) is fairly representative: Where an activity raises threats of harm to the environment or human health, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. In this context the proponent of an activity, rather than the public, bears the burden of proof. Considered as a generic rule, this formulation of the principle **could be read as a** simple **requirement to take risks into account, even if** they are **unproven, a prescription** that is **embodied in** all **mainstream approaches to** the theory of **decision under uncertainty. This is the interp**retation **given by Gollier et al.** (2000), **who focus on the option value associated with waiting for further info**rmation. Since a complete risk analysis should incorporate option values, this defence of the Pre-cautionary Principle amounts to the claim that, **in practice, risk analyses are usually incomplete, and** that **this error can be corrected by** adoption of **the P**recautionary **P**rinciple**.**

5. CBA can’t solve uncertainty and the EPA proves it fails. The PP is key.

**Sachs 11** writes[[20]](#footnote-20)

My first response is that the **detailed**, quantitative **risk tradeoff analysis that Sunstein**, Wiener, Graham, **and other critics advocate is** often **difficult to implement**, as a practical matter, **within the legislative process**. Enactment of legislation is both the primary focus of this Article and the proper focus of analysis of the Strong Precautionary Principle. The Principle should be viewed primarily as a framework to guide legislators, rather than a framework to guide regulators, because, at least in U.S. law, the shift in the burden of proof usually requires some legislative authorization.149 In deciding whether to enact a new statute, **legislators should of course** attempt to **identify** the **tradeoffs involved**, including opportunity costs and any countervailing risks. They should also seek to identify ancillary benefits from legislation, other than the intended target effects.150 This is simply good decision making. **There is a limited ability, however,** in the run-up to passage of new legislation, **for legislators** or their staffs **to perform** a **comprehensive c**ost- **b**enefit **a**nalysis **on all possible** decision-making **paths**.151 **Legislators cannot easily predict**, for example, **how citizens and firms will adjust their behavior** in response to various legislative options. Indeed, in enacting a regulatory regime based on delegated authority, legislators cannot be sure of the stringency of the regulations that will be promulgated by an administrative agency, nor can they predict which particular products or activities will be prohibited or allowed, because these decisions will usually be made years later by the agency. Therefore, it is often impossible for legislators to know, in advance, the costs and benefits of different legislative proposals. It is often impossible for legislators to know, in advance, whether Bill A will lead to a Pareto-superior suite of risk reductions compared to Bill B (assuming they are even cognizant of these subtleties). 152 Moreover, **monetizing** projected **risk reductions and estimating** the **cost of legislation is notoriously difficult for environmental** and public health **statutes**.153 Risk tradeoff analysis depends on being able to accurately characterize risk and monetize the expected value of all projected harms. **If**, however, **there is credible evidence of serious risk from a certain** technology or **activity, yet probabilities cannot be attached** and dollar values cannot be assigned, **we are in the realm of** vast **uncertainty**—precisely the realm **where Strong Precaution has the most salience**. What is called for in these situations is caution, humility, and a framework that protects public health and the environment while further research is conducted. In contexts of serious potential risks and significant uncertainty, **a mandate for government to conduct comprehensive c**ost-**b**enefit **a**nalysis on all potential decision options **may have pernicious results. Policy makers, under pressure from well-financed** contributors and **interest groups, may simply delay addressing** those **harms to** human health or **the environment** that scientists have identified as being serious.154 The quest for quantifying all tradeoffs—what Donald Hornstein has called “super synopticism”155—may lead to a different kind of “paralysis” than the one that Sunstein says is inherent in Strong Precaution: paralysis by analysis. 156 This concern—that protective health and environmental legislation will be undermined by demands for comprehensive risk tradeoff analysis— is not just hypothetical. The primary reason that the EPA has become crippled in its ability to restrict chemicals already on the market is that TSCA commands the EPA to perform extensive cost-benefit balancing on any decision to restrict a chemical, including identifying the “least burdensome” alternative that will address the risk.157 The courts have interpreted this requirement to mean that the agency must conduct costbenefit analysis not only on a proposed restriction of a chemical, but also on a tiered ladder of other possible regulatory alternatives with varying stringency.158 The **massive information needs of such a task have meant**, in practice, **that the EPA has not been able to pull known hazardous substances off the market, including asbestos**,159 which is classified as a known carcinogen by both the National Toxicology Program and the International Agency for Research on Cancer.160 The U.S. environmental statute most committed to cost-benefit balancing for toxic risks is the one that has been the least effective in addressing them. Despite the lethargic and unprotective track record of TSCA, Sunstein continues to advocate careful cost-benefit balancing in chemical regulation to determine whether a particular hazardous substance should be restricted from the marketplace. According to Sunstein, government regulators should compare a chemical’s risk to human well-being with the benefits we gain from the chemical.161 But as Congress takes up TSCA reform, it must recognize that continuing to rely on chemical-bychemical cost-benefit balancing, with a governmental burden of proof is tantamount to unprecautionary regulation.

## AT Race Ks

The PP is key to challenge environmental racism. **Raffensperger 4** writes[[21]](#footnote-21)

MM: How does the Precautionary Principle connect with another rising ecological principle: environmental justice? Raffensperger: It seems to mesh quite well. California's EPA has adopted the Precautionary Principle along with the idea of assessing cumulative impacts to guide the agency's environmental justice policy. What they're saying is: **people of color have taken the brunt for** all of these **various tech**nologies and landfills and other things that have been sited **in their neighborhoods**. Regulators tend to evaluate them all individually and not look at their cumulative impacts, and we need to apply the Precautionary Principle to address those cumulative impacts. We need to begin preventing harm and looking at it systemically rather than with this kind of piecemeal risk assessment. **Environmental justice advocates** have also been quite clear about the burden of proof -- for so long they **have carried not only the burden of toxic chemicals, but** the burden of **having to prove that they have been injured. With the P**recautionary **P**rinciple **saying, that's not your job, it really is industry's responsibility to monitor, test and pay for damage and clean-up, it has codified things they have been saying all along.**

Environmental racism comes first. Critiques of racism must be based in protecting the environment.

**Cone 7** writes[[22]](#footnote-22)

Until recently, ecological justice has not been a major theme in the liberation movements in the African-American community. "Blacks don't care about the environment" is a typical comment by white ecologists. Racial and economic justice has been at best only a marginal concern in the mainstream environmental movement. "White people care more about the endangered whale and the spotted owl than they do about the survival of young blacks in our nation's cities" is a well-founded belief in the African-American community. Justice fighters for **blacks and** the **defenders of the earth** have tended to ignore each other in their public discourse and practice. Their separation from each other is unfortunate, because they **are fighting the same enemy**—human beings' domination of each other and nature. The **logic that led to slavery and segregation** in the Americas**, colonization and apartheid** in Africa, and the rule of white supremacy throughout the world **is the same** one **that leads to** theexploitation of animals and the **ravaging of nature. It is** a mechanistic and instrumental **logic that defines everything** and everybody **in terms of** their **contribution to** the **development** and defense **of white world supremacy**. People who fight against white racism but fail to connect it to the degradation of the earth are anti-ecological, whether they know it or not. People who struggle against ecological injustice but do not incorporate in it a disciplined and sustained fight against white supremacy are racists, whether they acknowledge it or not. The fight for justice cannot be segregated but must be integrated with the fight for life in all its forms. The **leaders in the mainstream environmental movement are mostly middle- and upper-class whites** who are unprepared culturally and intellectually to dialogue with angry blacks. The leaders in the African-American community are leery of talking about anything with whites that will distract from the menacing reality of racism. What both groups fail to realize is how much they need each other in the struggle for justice, peace, and the integrity of creation. I want to challenge the black freedom movement to take a critical look at itself through the lens of the ecological movement and also challenge the ecological movement to critique itself through a serious and ongoing engagement of racism in American history and culture. Hopefully, **we can** break the silence and **promote genuine solidarity** between the two groups **and thereby enhance** the **quality of life for the whole inhabited earth**—humankind and otherkind.

## AT GMOs DA

1. No link. EU proves. Prohibiting GMOs is misuse of the PP.

**Select Committee 14** writes[[23]](#footnote-23)

The Department for Environment, Food and Rural Affairs (DEFRA) believes that GM is one of several technologies necessary to foster a “vibrant sector” in UK agriculture. But **the E**uropean **U**nion**’s application of the ‘p**recautionary **p**rinciple**’ has been criticized for holding back** development of **the technology, despite** European Commission reports **finding no scientific evidence associating GM organisms with higher risks for the environment** or food and feed safety. Launching the inquiry, Andrew Miller MP, Chair of the Science and Technology Committee, said: “GM technology potentially offers an array of benefits, but **concerns are being expressed that it is being held back by misuse of the p**recautionary **p**rinciple**.**

2. No link. The PP doesn’t say that DCs should be pro-environment in every single instance. If it’s certain that GMOs are necessary, the PP wouldn’t entail banning them.

3. GM crops don’t solve hunger. **Gucciardi 12** writes[[24]](#footnote-24)

Funded by the World Bank and United Nations, an organization was created known as the International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD). Consisting of **900 scientists and researchers**, they **set out to examine** the complex issue of **world hunger**. While the issue of world hunger may be quite complex, their results were not. Quite plainly, the group **found that g**enetically **m**odified **crops were not a** meaningful **solution** to the problem. In other words, the expert team showed through rigorous analysis and repeated study that the claims made by Bill Gates are completely inaccurate.

## AT Indigenous Neg

No link and turn. Precautionary Principle respects indigenous people and is key to their cultural identity.

**UArizona 13** writes[[25]](#footnote-25)

**Indigenous communities** are widely understood to **have a unique connection with their environment. This consensus reflects longstanding recognition within the field of** **international human rights**with respect to the inherent nature of indigenous cultural identity and the role of the environment. Indeed, this understanding is a significant contributor to modern human rights protections and safeguards in the absence of adequate domestic measures. This presentation will consider, contrast, and assess the differing approaches by domestic and international decision-making bodies with regard to the precautionary principle and its role in protecting indigenous communities from environmental harms. The gap within the international human rights system will be examined - the discussion will focus on the growing body of literature within the environmental and public health academy that recognizes **indigenous claims to the environment based upon** impact and risk assessment of indigenous rights of use, **subsistence living, and proximity** to the project site. The discussion will demonstrate how these factors **enhance our understanding of** indigenous **cultural identity and reinforce the significance of the precautionary principle with regard to** establishing the **minimal safeguards necessary to protect indigenous communities** and their environment.

## AT No Uncertainty

Environmental uncertainty is high now. We must take it into account.

**Tickner et al. 99** writes[[26]](#footnote-26)

**In the** open, **dynamic environments in which humans live** and operate**, knowledge** often **has limits**, and scientific certainty is difficult to attain. **Uncertainty** itself **comes in many varieties**, nonscientific as well as scientific. Some kinds of uncertainty can be addressed and reduced; others cannot. **When we make judgments affecting the environment** and public health**, understanding what we do not know**, and why, **is** as **important** as pinning down facts. Uncertainties can be placed in the following categories: Parameter uncertainty refers to missing or ambiguous information in specific informational components of an analysis. Parameter uncertainty can often be reduced by gathering more information or using better techniques to gather and analyze it. However, if it is due to variability, this may not be the case. In environmental releases, individuals not only receive various exposures; they also vary in their susceptibility to harm. Attempts to measure and control exposure to hazards may inadequately protect many in the population. Model uncertainty refers to gaps in scientific theory or imprecision in the models used to bridge information gaps, for example, in a dose-response model. **Models** are constructed to explain current or past events or predict the future. They **are only as good as** the **info**rmation **used to build them** which is necessarily incomplete when models refer to open and interdependent environmental systems. Models can be improved as they incorporate more, and more precise, information. **Systemic or epistemic uncertainty refers to** the **unknown effects of cumulative**, multiple, and/or interactive **exposures. Systemic uncertainty can be an important confounding factor in** large-scale or **long-term analyses.** Smokescreen uncertainty refers to the strategies of those who create risks and have a stake in concealing the effects of a specific substance or activity. They may refrain from studying a hazard, conceal knowledge of effects, or design studies to create uncertainty. Critics of regulation often use uncertainty to avoid it. **Politically induced uncertainty refers to** deliberate **ignorance on the part of agencies charged with protecting** health and **the environment**. The agency may decide not to study a hazard, limit the scope of its analysis or alternatives to solve a problem, downplay uncertainty in its decisions, or hide uncertainty in quantitative models. Indeterminacy means that the uncertainties involved are of such magnitude and variety that they may never be significantly reduced. Ignorance has two faces: Positively, it is a humble admission that we don't know how much we don't know. Negatively, it is the practice of making decisions without considering uncertainties.

**AT Vague**

1. The PP can guide policies, and vagueness is non-unique for governments.

**Ahteensuu 7** writes[[27]](#footnote-27)

Should the vagueness of the PP result in its abandonment? As correctly pointed out by Sandin and his colleagues (2002:289), the **lack of precision** in the definition **is not unique to the PP**, but also holds in regard to several other decision rules. (**Writing general policy objectives in legislation is**, in fact, a **common practice.**) Consequently, the same objection could be raised in these other cases as well. This implies two options for the critics of the PP. One option is to argue that principles (such as the PP) in general are vague, and thus cannot provide useful guidance for decision-making. This might be based upon the fact that (decision-making) principles do not imply context specific guidance, and thus their application to concrete situations presupposes interpretation (see e.g. Beauchamp and Childress 1983:5, Gardiner, Nollkaemper 1996:80–81). Following Ronald Dworkin’s description of legal principles, [a] principle […] states a reason that argues in one direction, but does not necessitate a particular decision. […] There may be other principles or policies arguing in the other direction […] If so, our principle may not prevail, but that does not mean that it is not a principle of our legal system, because in the next case, when these contravening considerations are absent or less weighty, the principle may be decisive. All that is meant, when we say that a particular principle is a principle of our law, is that the principle is one which officials must take into account, if it is relevant, as a consideration inclining in one direction or another (1978:26). Dworkin makes here two important observations, specifically that principles (of law) have to be considered in the realm of other principles and that they (usually) leave room for discretion. Given the vague nature of principles in this sense, the argument from ambiguity has consequences which are not satisfactory. It follows that if the PP should be abandoned because its nature as a principle, then − in the name of consistency − other principles should go with the same strain. Provided that **we are not willing to abandon most** of our (conduct-guiding) **principles** − as a kind of a reductio ad absurdum − this way of argumentation is not plausible. The other, and more plausible, option would be to try to show that even if principles in general are vague and in need of interpretation when applied to concrete cases, the PP is ill-defined in a special way, and that this makes the principle flawed. Again, two sub-options for an argument emerge. First, that there is an essential difference between the PP and (most of the) other decision-making principles might be argued for. Yet what that difference could be in practice is hard to imagine. **It is not the case that** the **PP offers** us **no guidance for action. The principle offers a rationale to act in the case of uncertain risks** before the scientific proof of the causal relationship between an action and the assumed damage is achieved. Moreover, the **existence of several definitions is not unique** to the PP. The principle of sustainable development, for instance, has several definitions (and interpretations). Lastly, **other legal principles** and terms **also require interpretation and deliberation when applied to particular cases.** Thus, the burden of proof seems to remain with the proponents of this view. Second, following the argument presented by Sandin and his colleagues, even if other decision rules are not in principle more well-defined than the precautionary principle, they might in fact be, in the sense that due to their long period of use there has emerged a substantial body of interpretations and practices that partly compensate for the lack of exact definitions. There are, for instance, governmental guidance documents and court cases that can be of help in interpreting these principles (2002:289). I do not deny this because the history of the PP in official texts and court decisions is still a brief one. Nonetheless, when considering the weight of this argument, the following facts should be taken seriously. Why the PP could not be defined more precisely in principle is hard to imagine. **Several governmental documents** (such as the CEC) have been established in order to clarify the principle **and** its use. In addition, academic efforts have been dedicated to define the principle more precisely (e.g. Ahteensuu forthcoming, 2007, Sandin 1999). Lastly, a number of **court decisions already exist, and** they **can be used as precedents in the future**. In sum, the PP is currently vague in several senses, but so are various other decision-making principles which we use. In order to demonstrate that the PP should be abandoned on this basis, one would have to show why the case of the PP is different from, and more problematic than, other principles with respect to its vagueness, and that this reason is strong enough for the rejection of the principle.

2. Specification isn’t key. The exact burden of proof is left up to democratic legislation.

**Sachs 11** writes[[28]](#footnote-28)

The governing risk standard—**what, exactly, the proponent must** show or **prove**—**is not set forth in the Principle itself, but** rather in implementing **legislation**, **enacted through democratic processes**. Sunstein and other **critics are asking** far **too much from a brief principle** when they criticize it for failing to answer complex questions about the valuation of human life139 or the distributional consequences of risk decision making. 140 The Principle was never intended for these purposes; **the proper venue for** resolution of **these questions is implementing legislation.**

## AT Due Process NC

1. The PP isn’t inherently inconsistent with due process. The Columbian Court agrees.

**Castelblanco 11** writes[[29]](#footnote-29)

The **recent suspension of** the Los Ciruelos **Ecotourism** Project **in Tayrona National Park, based on the precautionary principle**, highlighted the need to understand such principle which, until now, has been widely used as a basis for environmental decisions, but not necessarily understood. What then is the scope of this principle? The precautionary principle, first recognized in the Declaration of the United Nations Conference on Environment and Development and later reiterated in other instruments ratified by Colombia, such as the Convention on Biological Diversity and the Framework Convention on Climate Change, was incorporated in national law by Law 99 of 1993, as one of the general environmental principles whose observance is obligatory for environmental authorities and individuals. Under this principle, "when there is threat of serious and irreversible damage, lack of full scientific certainty should not be used as a reason for postponing cost-effective measures to prevent environmental degradation." In this sense, the precautionary principle is justified by the inability to determine with certainty what effects a certain activity will have on the environment, due to the inner limits of scientific knowledge and, therefore, its application must be exceptional and motivated. By way of example, the precautionary principle would take precedence over the release of living modified organisms in fragile ecosystems, where it is not scientifically possible to clearly anticipate the full effects of this activity on the environment. On the contrary, in regards to projects whose effects are determinable, national and international law enshrines the principle of prevention, the main application is the environmental license requirement for certain activities, as a planning instrument for ensuring the introduction of environmental considerations in economic development. For its part, **the Constitutional Court has held that** in order **for** the application of **the p**recautionary **p**rinciple **to not result in arbitrariness** by environmental authorities, **contrary to due process**, **it is necessary to prove** the concurrence of five elements, namely: (i) **existence of** a **risk** of harm**;** (ii) **that the harm posed is serious and irreversible;** (iii) **that there is** a **minimum** of **scientific certainty, even if** it is **not absolute;** (iv) **that** the decision to use **the principle is intended to prevent environmental degradation; and** (v) **that the decision is justified**. Based on these conditions, it would be legitimate for the environmental authority to adopt the measures it deems necessary in order to protect the environment, including against projects that are already licensed and / or in operation. **In the case of** the **Los Ciruelos ecotourism project, the environmental authority considered** that the requirements for applying the precautionary principle were proved, as a result of the danger of **irreversible** and imminent **harm** that would be **caused to the tropical** dry forest **ecosystem by** the **construction of permanent facilities within the area**. This conclusion was supported in subsequent studies to the granting of the environmental license for the project. Thus, the project will be suspended until such time that the environmental authority clearly determines the effects it will generate on the ecosystem and, if necessary, the environmental license should be reconsidered or even canceled in favor of the constitutional mandates of protecting biodiversity and integrity of natural resources. In this context, **the p**recautionary **p**rinciple **stands as one of the main instruments for** ensuring the **effective protection of the environment** and human health, mainly because, as a rule, the harmful effects of certain activities or products can be fully understood only years after their generation and, therefore, priority should be given to prevention over mitigation, correction and compensation. However, for its exceptional nature, this principle should be used only against the limitations of scientific knowledge, not as an escape to rigorous analysis by authorities and individuals.

2. Extinction comes first. It’s the worst violation of due process since no one deserves it.

3. There is no universal formula for due process. The authors analyzed 16 developing countries. **Court et al 3** writes[[30]](#footnote-30)

The main finding is that in our governance perspective the **judicial** arena is important but the way it functions is not very satisfactory. While some of these **problems** may be possible to address through capacity building, it is clear that they **are more political than technical in nature**. Our survey points to the many cases of political interference, the lack of accountability and widespread corruption. Respondents have repeatedly drawn attention to the fact that that connections matter and money buys justice. We do not suggest that the international donor community should stop funding work in the judicial arena, but we do agree with Carothers that aid to this arena has not been very effective to date. As he writes, “after more than ten years and hundreds of millions of dollars in aid, many judicial systems in Latin America still function poorly… Russia is probably the single largest recipient of such aid, but is not even clearly moving in the right direction.”32 Our survey suggests that the challenge is that judicial reform takes longer time than donors typically allow for their project support. A revision of the time horizon for support of such reform may be the first step to take. The second point is that the judicial arena is important not just for commercial and financial development, although these concerns tend to be of highest priority, especially in international finance institutions. While it may be a necessary concern, it is definitely not sufficient for improving governance in this and other arenas. **What is going on in other arenas has an impact on the quality of the judicial arena**. Commercial and financial reform objectives, therefore, cannot be treated in isolation of their political context. The third point is that **there is virtue in flexibility and sensitivity to context**. Improvement in governance practices is possible not only with the help of a liberal paradigm but also with reforms of existing institutions. We also found that **informal institutions sometimes are more suitable than formal ones**. As Frank Upham has noted, putting all the eggs in the formal basket is often misguided, yet it is the preferred practice in the World Bank and many other donor agencies. The point is that **there is no single formula for a fair administration of justice.**

4. States can’t always respect side-constraints like due process since they can only work with aggregates, so util comes first. That’s Goodin 90.

## AT PP = Zero Risk (Sunstein)

Sunstein is a straw man. **Sachs 11** writes[[31]](#footnote-31)

Rather than seriously grapple with examples of Strong Precaution in existing law, **many critics** instead **challenge a straw man**—a jumble of extremist positions and hard-to-defend results that allegedly flow from Strong Precaution. Critics frequently contend, for example, that the Strong Precautionary Principle amounts to an intolerable command for proponents of potentially harmful technologies to prove zero risk.126 As Ronald Bailey charged, “manufacturers would have to prove that their creations wouldn’t cause harm—ever—to the environment or human health before they would be allowed to offer them to the public.”127 According to Bailey, this is like “demanding that a newborn baby prove that it will never grow up to be a serial killer, or even just a schoolyard bully . . . .”128 Zero risk is an undesirable and unattainable goal.129 Regulators rarely face a choice between risk and no risk. They must choose instead among various options with different degrees of risk. There is nothing in the Strong Precautionary Principle that precludes priority setting, and I suggest some avenues for doing so in chemical regulation in Part III. To claim that Strong Precaution is a zero-risk standard is merely to set the straw man on his post. Zero risk is an easy target to knock down, but it misses the crux of the debate. **Sunstein** is one detractor who **paints the** Strong **P**recautionary **P**rinciple **as** almost comically extreme. After noting the acceptability of weaker versions of the Precautionary Principle, he defines the Strong Precautionary Principle as the view that “regulation is required whenever there is a possible risk to health, safety, or the environment, even if the supporting evidence remains speculative and even if the economic costs of regulation are high.”130 This is the definition of the “Precautionary Principle” that Sunstein excoriates in his 2005 book, Laws of Fear, and in his major article in University of Pennsylvania Law Review, in which he encourages us to move “Beyond the Precautionary Principle.”131 But notice that his definition is **far more extreme** and risk averse **than the Wingspread Statement, which is widely considered** to be **emblematic of the Strong P**recautionary **P**rinciple**.** Sunstein’s definition, commanding regulation for all “possible” risks, even when based on “speculative” science, is a caricature of advocates’ arguments. Sunstein neglects that **most formulations of Strong Precaution** specifically **contemplate approval of activities that may pose serious** health or **environmental threats, as long as** their **risks are justified by** their **proponents as** tolerable or **within prescribed bounds. Strong Precaution does not require** the **elimination of all risk** nor the elimination of risk **at any cost**. What Sunstein has done is to take, as the basis for his definition, some of the most radical formulations of the Precautionary Principle ever committed to paper.132 Because Sunstein defines the Strong Precautionary Principle in this way, it is not surprising that he is able to attack it at length. Revealingly, he states that the strongest versions of the Precautionary Principle, embodied in his own definition, might reflect “a po sition that no one is ultimately willing to hold.”133 This raises the question of why he has adopted that definition as his foil, rather than definitions of the Principle more widely accepted in the literature. Most formulations of the Strong Precautionary Principle, including my own definition and that of the Wingspread Statement, offer far more flexibility than this extreme portrait painted by the critics.134 The Strong Precautionary Principle does not impose a burden on any party to prove zero risk, **nor does it state that all activities that pose a possible risk must be prohibited**. Rather, **the Principle**, while shifting the burden of proof away from government, **deliberately leaves the relevant standard of proof open-ended and subject to democratic deliberation**. The Principle requires that a proponent demonstrate that its product or activity meets a specified standard (predetermined through legislation) for how much risk is tolerable or acceptable in a given issue area.

## AT Bans Bad

The PP doesn’t require wholesale bans, and no impact.

**Sachs 11** writes[[32]](#footnote-32)

In addition to providing flexibility to design risk standards, the Strong Precautionary Principle also affords flexibility to design default regulatory responses in the time period before the proponent has met the burden of proof. The extremist critique suggests that the only response of regulators, acting in accordance with the Strong Precautionary Principle, is to ban activities that pose possible or potential risks.142 But **the** Strong **P**recautionary **P**rinciple **can be implemented through a variety of defaults beyond** simplistic, **binary (ban or no-ban) choices**.143 Appropriate **defaults might include partial prohibitions, worker-safety precautions, locational restrictions, or warnings**. Even where a regulatory regime provides for a default policy of **complete prohibition** (as is the case with FDA drug reviews, EPA pesticide registration, and most governmental licensing and permitting programs), the Strong Precautionary Principle clearly provides that the default **can be overcome by proof of acceptable risks submitted by the applicant.**

## AT Policy Paralysis (Sunstein)

The PP doesn’t cause paralysis in the face of tradeoffs.

**Sachs 11** writes[[33]](#footnote-33)

Recall Sunstein’s contention that because regulation may cause risks of its own, or deprive society of some significant benefits, “stringent regulation would actually run afoul of the Precautionary Principle.”164 Some examples from outside environmental law help to illustrate why **legislators need not be paralyzed in choosing** to implement **a Strong Precautionary framework**. Consider first the licensing of doctors and nurses. There is clearly a risk-risk tradeoff in a decision on whether to enact a licensing statute, with human lives at stake “on all sides” of the choice, to use a favorite phrase of the critics.165 Not requiring a license could result in untrained people performing surgeries and prescribing medications. Yet, requiring a license clearly limits the supply of doctors and nurses, which could put lives at risk in medically underserved communities.166 But why should applying the Strong Precautionary Principle be “paralyzing” here? Would we really say that either decision would be equally precautionary, or that a precautionary legislator would find it impossible to decide? Consistent with the Strong Precautionary Principle, legislators have made a judgment (in all fifty states) that it is better to have a default rule prohibiting unlicensed medical practice, with the applicant bearing the burden of proof on their qualifications for the license, 167 rather than to allow any person to practice medicine and then respond to any resulting harm on an ex post basis. We do not consider costs and benefits in deciding whether a particular nurse or doctor should be allowed to enter the market for medical services (the kind of individualized determination that Sunstein has advocated for chemical substances). We instead implement a firm rule that applies to all practitioners in every state: if you want to practice medicine, you must bear the burden to prove, ex ante, that you have the required skills, training, and knowledge. **That there are** some **inevitable tradeoffs** in grounding medical licensing rules in the Strong Precautionary Principle **does not eviscerate the coherence of Strong Precaution** as an approach to risk. As another example of why a Strong Precautionary approach need not be “paralyzing” in the presence of tradeoffs, **consider** federal and state **laws** on operation of **new airports**, **which require applicants to receive ex ante government approval** for construction and operation.168 The goals of such statutes are to avoid overcrowding in the skies resulting from locating airports too close to each other and to guarantee some minimal safety standards for airport facilities.169 Under federal law, **the FAA does not determine whether** the **benefits of a proposed airport** (measured in terms of economic growth, tax revenue, or recreational enjoyment) **exceed** the **potential risks**.170 Rather, airport preapproval **statutes** are prescriptive. They **say** to the operator: **given potential serious threats to public safety from a poorly located** or poorly operated **airport, government will hold you to specific safety standards and forbid you from** engaging in airport **operation until you can prove that your facility meets the standards**, even if there are significant foregone economic benefits from prohibiting airport operation.171 The Strong Precautionary Principle’s salutary signals are very much present here—legislators demand compliance with minimum safety standards, place the burden of proof on the applicant to show that risks will be acceptable, and allow vigorous competition to occur within that framework.

## AT Ks (General)

### Role of the Ballot

#### Analytics

The role of the ballot is to endorse the best post-fiat plan.

1. Aff choice. Provides a stasis point which forces the neg to clash.

2. Predictable limits. There’s unlimited roles of the ballot and kritik alts. Topic focus is the only way to create a limited lit base which makes research possible.

3. Time skew. Shifting focus in the NC moots the AC and forces a 1AR restart.

These all turn his education claims because they’re pre-requisites to effective dialogue.

#### Topic Edu First

Topic education outweighs. EP is undervalued now.

**Babb 14** writes[[34]](#footnote-34)

We’re actually not all that committed to environmentalism Though it’s fundamentally beyond the scope of this small contribution, there’s probably something to be said about our underlying attitudes toward the environment. Whether we admit it or not, **we are children of a** very **developed world**. We enjoy the products of environmentally-tainted production on a daily basis. **Our economy and freedom** of movement **are premised on** a series of **planet-dirtying practices**. On some level, **that** has to **affect our willingness to tell the story of environmentalism**, to re-issue the edicts that publicly temper our very real commitments to development. We’re all aware of what’s happening to the environment, but we’re only sometimes willing to do very much about it. The difference between the Right and Left on this point is far more a function of ideology than output. Despite the stark disagreements between the two sides, **there remains** a **near**ly **universal unwillingness to seriously alter** our **daily routines** on behalf of the environment. What little we do is often done for us by corporations steered by consumer choice. Indeed, the most effort we typically exert on behalf of the environment is choosing one brand over another. So maybe it shouldn’t be all that surprising that debaters are choosing strategy over the environment. **The topic has given** our community **a** ready-made **soapbox for** the **reaffirmation of the environment**alist creed.

#### Decision-Making

Environmental policy discussions are key to critical thinking and decision-making skills. **Pereiro-Munoz et al 2** write[[35]](#footnote-35)

If **science** education **and environmental education have as a goal to develop critical thinking** and to promote decision making, it seems that the **acknowledgement of** a variety of **experts** and expertise **is of relevance** to both**. Otherwise citizens could be unable to challenge a common view that places econ**omical issues and technical features **over other** types of values or **concerns**. As McGinn and Roth (1999) argue, **citizens should be prepared to participate** in scientific practice, to be involved **in situations where science is**, if not created, at least **used.** The **assessment of environmental management is**, in our opinion, **one of these, and citizens do not need to possess all the technical knowledge to** be able to **examine** the positive and negative **impacts and** to **weigh** them up. The identification of instances of scientific practice in classroom discourse is difficult especially if this practice is viewed as a complex process, not as fixed ‘steps’. Several instances were identified when it could be said that students acted as a knowledge-producing community in spite of the fact that the students, particularly at the beginning of the sequence, expressed doubts about their capacities to assess a project written by experts and endorsed by a government office. Perhaps these doubts relate to the nature of the project, a ‘real life’ object that made its way into the classroom, into the ‘school life’. As Brown et al. (1989) point out, there is usually a difference between practitioners’ tasks and stereotyped school tasks and, it could be added, students are not used to being confronted with the complexity of ‘life-size’ problems. However, as the sequence proceeded, the **students assumed the role of experts**, exposing inconsistencies in the project, **offering alternatives and discussing** it with one of its authors. The issue of expertise is worthy of attention and it needs to be explored in different contexts where the relationships among technical expertise, values hierarchies and possible biases caused by the subject matter could be unravelled. **One of the objectives of environmental education is to empower people with** the capacity of **decision making**; for this purpose the acknowledging of multiple expertise is crucial.

Decision making is the most portable and flexible skill—key to all facets of life and advocacy.

**Steinberg and Freeley 13** writes[[36]](#footnote-36)

**In** the spring of **2011**, facing a legacy of problematic U.S, military involvement in Bosnia, Iraq, and Afghanistan, and criticism for what some saw as slow sup­port of the United States for the people of Egypt and Tunisia as citizens of those nations ousted their formerly American-backed dictators, the administration of President Barack **Obama considered** its **options in** providing support for rebels seeking to overthrow the government of Muammar el-Qaddafi in **Libya**. Public debate was robust as the administration sought to determine its most appropriate action. The president ultimately decided to engage in an international coalition, enforcing United Nations Security Council Resolution 1973 through a number of measures including establishment of a no-fly zone through air and missile strikes to support rebels in Libya, but stopping short of direct U.S. intervention with ground forces or any occupation of Libya. While the action seemed to achieve its immediate objectives, most notably the defeat of Qaddafi and his regime, the American president received both criticism and praise for his mea­sured yet assertive decision. In fact, **the past decade has challenged American leaders to make** many difficult **decisions in response to** potentially **catastrophic problems**. Public debate has raged in chaotic environment of political division and apparent animosity, The process of public decision making may have never been so consequential or difficult. Beginning in the fall of 2008, Presidents Bush and Obama faced a growing eco­nomic crisis and responded in part with '’bailouts'' of certain Wall Street financial entities, additional bailouts of Detroit automakers, and a major economic stimu­lus package. All these actions generated substantial public discourse regarding the necessity, wisdom, and consequences of acting (or not acting). In the summer of 2011, the president and the Congress participated in heated debates (and attempted negotiations) to raise the nation's debt ceiling such that the U.S. Federal Govern­ment could pay its debts and continue government operations. This discussion was linked to a debate about the size of the exponentially growing national debt, gov­ernment spending, and taxation. Further, in the spring of 2012, U.S. leaders sought to prevent Iran from developing nuclear weapon capability while gas prices in the United States rose, The United States considered its ongoing military involvement in Afghanistan in the face of nationwide protests and violence in that country1 sparked by the alleged burning of Korans by American soldiers, and Americans observed the actions of President Bashir Al-Assad and Syrian forces as they killed Syrian citizens in response to a rebel uprising in that nation and considered the role of the United States in that action. Meanwhile, public discourse, in part generated and intensified by the cam­paigns of the GOP candidates for president and consequent media coverage, addressed issues dividing Americans, including health care, women's rights to reproductive health services, the freedom of churches and church-run organiza­tions to remain true to their beliefs in providing (or electing not to provide) health care services which they oppose, the growing gap between the wealthiest 1 percent of Americans and the rest of the American population, and continued high levels of unemployment. More division among the American public would be hard to imagine. Yet through all the tension, conflict was almost entirely ver­bal in nature, aimed at discovering or advocating solutions to growing problems. **Individuals also face**d daunting **decisions. A** young **couple**, underwater with their mortgage and struggling to make their monthly payments, **considered walking away from their loan**; elsewhere **a** college **sophomore** **reconsidered his major** **and a senior her choice of** law school, graduate **school**, or a job and a teenager decided between an iPhone and an iPad. **Each of these** situations **called for decisions** to be made. Each decision maker worked hard to make well-reasoned decisions. Decision making is a thoughtful process of choosing among a variety of options for acting or thinking. It requires that the decider make a choice. Life demands decision making. **We make countless** individual **decisions every day**. To make some of those decisions, we work hard to employ care and consider­ation: others scorn to just happen. Couples, families, groups of friends, and co­workers come together to make choices, and decision-making bodies from committees to juries to the U.S. Congress and the United Nations make deci­sions that impact us all. **Every profession requires effective** and ethical **decision making**, **as do our school, community, and social organizations**. We all engage in discourse surrounding our necessary decisions every day. To refinance or sell one’s home, to buy a high-performance SUV or an eco­nomical hybrid car, what major to select, what to have for dinner, what candi­date to vote for, paper or plastic, all present us with choices. Should the president deal with an international crisis through military invasion or diplomacy? How should the U.S. Congress act to address illegal immigration? Is the defendant guilty as accused? Should we watch The Daily Show or the ball game? And upon what information should I rely to make my decision? Certainly some of these decisions are more consequential than others. Which amendment to vote for, what television program to watch, what course to take, which phone plan to purchase, and which diet to pursue—all present unique challenges. At our best, we seek out research and data to inform our decisions. Yet **even the choice of which information to attend to requires decision making**. In 2006, Time magazine named YOU its "Person of the Year.” Congratulations! Its selection was based on the participation not of “great men” in the creation of his­tory, but rather on the contributions of a community of anonymous participants in the evolution of information. Through blogs, online networking, YouTube, Facebook, Twitter, Wikipedia, and many other “wikis," and social networking sites, knowledge and truth are created from the bottom up, bypassing the authoritarian control of newspeople, academics, and publishers. Through a quick keyword search, we have access to infinite quantities of information, but how do we sort through it and select the best information for our needs? Much of what suffices as information is not reliable, or even ethically motivated. **The ability** of every decision maker **to make good**, reasoned, and ethical **deci­sions' relies** heavily up**on their ability** **to think critically**. Critical thinking enables one to break argumentation down to its component parts in order to evaluate its relative validity and strength, And, critical thinking offers tools enabling the user to better understand the' nature and relative quality of the message under consider­ation. Critical thinkers are better users of information as well as better advocates. Colleges and universities expect their students to develop their critical thinking skills and may require students to take designated courses to that end. The importance and value of such study is widely recognized. The executive order establishing California's requirement states; Instruction in critical thinking is designed to achieve an understanding of the relationship of language to logic, which would lead to the ability to analyze, criticize and advocate ideas, to reason inductively and deductively, and to reach factual or judgmental conclusions based on sound inferences drawn from unambigu­ous statements of knowledge or belief. The minimal competence to be expected at the successful conclusion of instruction in critical thinking should be the ability to distinguish fact from judgment, belief from knowledge, and skills in elementary inductive arid deductive processes, including an under­standing of die formal and informal fallacies of language and thought. **Competency in critical thinking is a prerequisite to participating effectively in human affairs**, pursuing higher education, and succeeding in the highly com­petitive world of business and the professions. Michael Scriven and Richard Paul for the National Council for Excellence in Critical Thinking Instruction argued that the effective critical thinker: raises vital questions and problems, formulating them clearly and precisely; gathers and assesses relevant information, using abstract ideas to interpret it effectively; comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards; thinks open-mindedly within alternative systems of thought, recognizing, and assessing, as need be, their assumptions, implications, and practical con­sequences; and communicates effectively with others in figuring our solutions to complex problems. They also observed that critical thinking entails effective communication and problem solving abilities and a commitment to overcome our native egocentrism and sociocentrism,"1 **Debate** as a classroom exercise and as a mode of thinking and behaving **uniquely** **promotes** development of each of **these skill sets.** Since classical times, debate has been one of the best methods of learning and applying the principles of critical thinking. Contemporary **research confirms** the value of debate. One study concluded: The impact of public communication training on the critical thinking ability of the participants is demonstrably positive. This summary of existing research reaffirms what many ex-debaters and others in forensics, public speaking, mock trial, or argumentation would support: participation improves die thinking of those involved,2 In particular, debate education improves the ability to think critically. In a com­prehensive review of the relevant research, Kent Colbert concluded, "'The debate-critical thinking literature provides presumptive proof ■favoring a positive debate-critical thinking relationship.11'1 Much of the most significant communication of our lives is conducted in the form of debates, formal or informal, These take place in intrapersonal commu­nications, with which we weigh the pros and cons of an important decision in our own minds, and in interpersonal communications, in which we listen to argu­ments intended to influence our decision or participate in exchanges to influence the decisions of others. Our **success or failure in life is** largely **determined by our ability to make** wise decisions for ourselves **and** to **influence the decisions of’ others** in ways that are beneficial to us. Much of our significant, purposeful activity is concerned with making decisions. Whether to join a campus organization, go to graduate school, accept a job offer, buy a car or house, move to another city, invest in a certain stock, or vote for Garcia—these are just a few Of the thousands of deci­sions we may have to make. Often, intelligent self-interest or a sense of respon­sibility will require us to win the support of others. We may want a scholarship or a particular job for ourselves, a customer for our product, or a vote for our favored political candidate. Some people make decision by flipping a coin. Others act on a whim or respond unconsciously to “hidden persuaders.” If the problem is trivial—such as whether to go to a concert or a film—the particular method used is unimportant. For more crucial matters, however, **mature adults** **require** a **reasoned methods of decision making**. Decisions should be justified by good reasons based on accurate evidence and valid reasoning.

### AT Cede the Political

Engaging the government is the only way to solve global problems. **Gates 7**[[37]](#footnote-37)

But **no foundation alone can solve** the health problems of **the developing world. We need** businesses and **government**s as partners. That means **we need** to get these issues on **the political agenda**, and we need to tap into market forces to get the private sector involved. It means we all need to embrace a broader definition of responsibility. **We must** be willing to **look at the failure of collective action** and see how we can change it. **Because these problems are so complex, government has to be involved in solving them. The Gates Foundation accounts for 1 percent of** the **giving in America. If we spent all of our endowment on education, it would amount to just half of what** the state of **California spends** on education **each year.** If we used it to fill the gap between the amount of money that's available for health in developing countries and the amount that's needed, it would barely last one year. Do the right thing, the right way But as soon as we say not just that we won't accept these diseases in our neighborhood or in our country, but that we won't accept them in our world, then we start the wheels of collective action turning. We start by **giving** our **governments permission** to spend more on these challenges. And that **will unleash** the potential for **sweeping change.**

Alt can’t solve and the perm is key. Criticism must be tied with political advocacy.

**McClean 1** writes[[38]](#footnote-38)

Yet for some reason, at least partially explicated in Richard Rorty's Achieving Our Country, a book that I think is long overdue, leftist critics continue to cite and refer to the eccentric and often a priori ruminations of people like those just mentioned, and a litany of others including Derrida, Deleuze, Lyotard, Jameson, and Lacan, who are to me hugely more irrelevant than Habermas in their narrative attempts to suggest policy prescriptions (when they actually do suggest them) aimed at curing the ills of homelessness, poverty, market greed, national belligerence and racism. I would like to suggest that it is time for American social critics who are enamored with this group, those who actually want to be relevant, to recognize that they have a disease, and a disease regarding which I myself must remember to stay faithful to my own twelve step program of recovery. The disease is the need for elaborate theoretical "remedies" wrapped in neological and multi-syllabic jargon. These elaborate theoretical remedies are more "interesting," to be sure, than the pragmatically settled questions about what shape democracy should take in various contexts, or whether private property should be protected by the state, or regarding our basic human nature (described, if not defined (heaven forbid!), in such statements as "We don't like to starve" and "We like to speak our minds without fear of death" and "We like to keep our children safe from poverty"). As Rorty puts it, "When one of today's academic leftists says that some topic has been 'inadequately theorized,' you can be pretty certain that he or she is going to drag in either philosophy of language, or Lacanian psychoanalysis, or some neo-Marxist version of economic determinism. . . . These **futile attempts to philosophize one's way into political relevance are a symptom of** what happens **when** a **Left** retreats from activism and **adopts a spectatorial approach to** the **problems** of its country. Disengagement from practice produces theoretical hallucinations"(italics mine).(1) Or as John Dewey put it in his The Need for a Recovery of Philosophy, "I believe that philosophy in America will be lost between chewing a historical cud long since reduced to woody fiber, or an apologetics for lost causes, . . . . or a scholastic, schematic formalism, unless it can somehow bring to consciousness America's own needs and its own implicit principle of successful action." Those who suffer or have suffered from this disease Rorty refers to as the Cultural Left, which left is juxtaposed to the Political Left that Rorty prefers and prefers for good reason. Another attribute of the Cultural Left is that its members fancy themselves pure culture critics who view the successes of America and the West, rather than some of the barbarous methods for achieving those successes, as mostly evil, and who view anything like national pride as equally evil even when that pride is tempered with the knowledge and admission of the nation's shortcomings. In other words, the Cultural Left, in this country, too often dismiss American society as beyond reform and redemption. And Rorty correctly argues that this is a disastrous conclusion, i.e. disastrous for the Cultural Left. I think it may also be disastrous for our social hopes, as I will explain. Leftist American culture **critics might put their** considerable **talents to better use if they bury** some of **their cynicism** about America's social and political prospects **and** help **forge** public and **political possibilities** in a spirit of determination to, indeed, achieve our country - the country of Jefferson and King; the country of John Dewey and Malcom X; the country of Franklin Roosevelt and Bayard Rustin, and of the later George Wallace and the later Barry Goldwater. To invoke the words of King, and with reference to the American society, the time is always ripe to seize the opportunity to help create the "beloved community," one woven with the thread of agape into a conceptually single yet diverse tapestry that shoots for nothing less than a true intra-American cosmopolitan ethos, one wherein both same sex unions and faith-based initiatives will be able to be part of the same social reality, one wherein business interests and the university are not seen as belonging to two separate galaxies but as part of the same answer to the threat of social and ethical nihilism. We who fancy ourselves philosophers would do well to create from within ourselves and from within our ranks a new kind of public intellectual who has both a hungry theoretical mind and who is yet capable of seeing the need to move past high theory to other important questions that are less bedazzling and "interesting" but more important to the prospect of our flourishing - questions such as "How is it possible to develop a citizenry that cherishes a certain hexis, one which prizes the character of the Samaritan on the road to Jericho almost more than any other?" or "How can we square the political dogma that undergirds the fantasy of a missile defense system with the need to treat America as but one member in a community of nations under a "law of peoples?"The new public philosopher might seek to understand labor law and military and trade theory and doctrine as much as theories of surplus value; the logic of international markets and trade agreements as much as critiques of commodification, and the politics of complexity as much as the politics of power (all of which can still be done from our arm chairs.) This means going down deep into the guts of our quotidian social institutions, into the grimy pragmatic details where intellectuals are loathe to dwell but where the officers and bureaucrats of those institutions take difficult and often unpleasant, imperfect decisions that affect other peoples' lives, and it means **making** honest **attempts to** truly **understand** how those **institutions** actually function in the actual world before howling for their overthrow commences. This **might** help **keep us from being slapped down in debates by true policy pros who actually know what they are talking about** but who lack awareness of the dogmatic assumptions from which they proceed, **and** who **have not** yet **found** a good **reason to listen to jargon-riddled lectures** from philosophers and culture critics with their snobish disrespect for the so-called "managerial class."

Engaging the state doesn’t make you statist. Only working within the state can solve warming and pure critique is meaningless. **Connolly 8** writes[[39]](#footnote-39)

Before turning to possible strategies to promote these objectives, we need to face an objection posed by one segment of the left: "Don't you depend a lot upon the state, when it must be viewed as the enemy?" My response is threefold. First, **there is no way to take on** global **warming without engaging the state** in the effort as well as international agencies, and global warming is a key danger of this epoch. Second, **it is less the state** itself **and more its** existing **subsidies** and priorities that are at issue. If you were to oppose both the market and the state **you** might **reduce** **the** democratic **left to pure critique, with no presentation of positive possibilities and strategies.** But **critique is always important and never enough**, as the left has begun to rediscover and as the American right has known for forty years. Third, **although one must acknowledge** the issues of cumbersome state **bureaucracy**, corporate **crony­ism**, **and** state **corruption**, all three increased radically when the evangelical-capitalist resonance machine achieved hegemony, and **they will get worse unless eco-egalitarians enter the fray at the** interceded **level**s **of** micropolitics, microeconomic experiments, and **the state**. It is unwise to act as if the state must always be what it has become. Challenging the media is critical in this respect, making it become a watchdog of corporations, the state, religious movements, and the multiple imbrications between them. My view, as be­comes clear in the next few pages, is that **no interim agenda** onthe left **can proceed far without** finding expression in **state policy,** and state policy must draw inspiration from microeconomic experiments initially launched outside its canopy: **microeconomic experiments and creative state policies must in­form each other**. **We** thus **seek to include the state without becoming statist.** Those who invest hope in revolutionary overthrow may oppose such a com­bination. I suspect that revolution, were it to occur, would undermine rather than vitalize democratic culture.29

### AT Discourse First

Discourse focus is counter-productive. It distracts from the question at hand.

**Brown 01** writes[[40]](#footnote-40)

“Speech codes kill critique,” Henry Louis Gates remarked in a 1993 essay on hate speech.14 Although Gates was referring to what happens when hate **speech regulations, and** the **debates about them, usurp the discursive space** in which one might have offered **[from] a substantive** political **response** to bigoted epithets, his point also applies to prohibitions against questioning from within selected political practices or institutions. But turning political questions into moralistic ones—as speech codes of any sort do—not only prohibits certain questions and mandates certain genuflections, it also expresses a profound hostility toward political life insofar as it seeks to preempt argument with a legislated and enforced truth. And the realization of that patently undemocratic desire can only and always convert emancipatory aspirations into reactionary ones. Indeed, it insulates those aspirations from questioning at the very moment that Weberian forces of rationalization and bureaucratization are quite likely to be domesticating them from another direction. Here we greet a persistent political paradox: the moralistic defense of critical practices, or of any besieged identity, weakens what it strives to fortify precisely by sequestering those practices from the kind of critical inquiry out of which they were born. Thus Gates might have said, “**Speech codes**, born of social critique, **kill critique**.” And, we might add, contemporary identity-based institutions, born of social critique, invariably become conservative as they are forced to essentialize the identity and naturalize the boundaries of what they once grasped as a contingent effect of historically specific social powers. But moralistic reproaches to certain kinds of speech or argument kill critique **not only by displacing it** with arguments about abstract rights versus identity-bound injuries, **but also by configuring** political **injustice** and political righteousness **as a problem of** remarks, attitude, and **speech rather than** as a matter of historical, political-economic, and **cultural formations of power.** Rather than offering analytically substantive accounts of the forces of injustice or injury, they condemn the manifestation of these forces in particular remarks or events. There is, in the inclination to ban (formally or informally) certain utterances and to mandate others, a politics of rhetoric and gesture that itself symptomizes despair over effecting change at more significant levels. As vast quantities of left and liberal attention go to determining what socially marked individuals say, how they are represented, and how many of each kind appear in certain institutions or are appointed to various commissions, the sources that generate racism, poverty, violence against women, and other elements of social injustice remain relatively unarticulated and unaddressed. We are lost as how to address those sources; but rather than examine this loss or disorientation, rather than bear the humiliation of our impotence, we posture as if we were still fighting the big and good fight in our clamor over words and names. Don’t mourn, moralize.

Discursive criticisms kill positive change.

**Churchill 96** writes[[41]](#footnote-41)

There can be little doubt that **matters of linguistic appropriateness** and precision are of serious and legitimate concern. By the same token, however, it must be conceded that such preoccupations arrive at a point of diminishing return. After that, they **degenerate rapidly into liabilities rather than benefits to comprehension**. By now, it should be evident that much of what is mentioned in this article falls under the latter category; it is, by and large, inept, esoteric, and semantically silly, bearing no more relevance in the real world than the question of how many angels can dance on the head of a pin. **Ultimately, it is a means to** stultify and **divide** people **rather than** stimulate and **unite** them. Nonetheless, such “issues” of word choice have come to dominate dialogue in a significant and apparently growing segment of **the Left**. Speakers, writers, and organizers of all persuasions **are drawn**, with increasing vociferousness and persistence, **into** heated **confrontations, not about what they’ve said, but about how they’ve said it.** **Decisions on whether to** enter into alliances, or **even to work with other parties, seem** more and more **contingent** not upon the prospect of a common agenda, but **upon** mutual **adherence to** certain elements of a prescribed **vernacular.** Mounting quantities of progressive time, energy, and attention are squandered in perversions of Mao’s principle of criticism/self-criticism – now variously called “process,” “line sharpening,” or even “struggle” – in which there occurs a virtually endless stream of talk about how to talk about “the issues.” All of **this happens at the direct expense of** actually understanding the issues themselves, much less **doing something** about them. It is impossible to escape the conclusion that **the dynamic** at hand adds up to a pronounced avoidance syndrome, a masturbatory ritual through which an opposition nearly paralyzed by its own deeply felt sense of impotence **pretends to be** engaged in something “**meaningful.**” In the end, **it reduces to a** tragic **delusion at best**, cynical game playing or intentional **disruption at worst**. With this said, it is only fair to observe that **it’s** high **time to get off this nonsense**, **and on with** the real work of effecting **positive** social **change.**

Reality outweighs representations. **Wendt 99** writes[[42]](#footnote-42)

The effects of holding a relational theory of meaning on theorizing about world politics are apparent in David Campbell's provocative study of US foreign policy, which shows how the threats posed by the Soviets, immigration, drugs, and so on, were constructed out of US national security discourse.29 The book clearly shows that material things in the world did not force US decision-makers to have particular representations of them - the picture theory of reference does not hold. In so doing it highlights the discursive aspects of truth and reference, the sense in which objects are relationally "constructed."30 On the other hand, while emphasizing several times that he is not denying the reality of, for example, Soviet actions, he specifically eschews (p. 4) any attempt to assess the extent to which they caused US representations. Thus he cannot address the extent to which US representations of the Soviet threat were accurate or true (questions of correspondence). He can only focus on the nature and consequences of the representations.31 Of course, there is nothing in the social science rule book which requires an interest in causal questions, and the nature and consequences of representations are important questions. In the terms discussed below he is engaging in a constitutive rather than causal inquiry. However, I suspect Campbell thinks that any attempt to assess the correspondence of **discourse to reality** is inherently pointless. According to the relational theory of reference we simply have no access to what the Soviet threat "really" was, and as such its truth is established entirely within discourse, not by the latter's correspondence to an extra-discursive reality 32 The main problem with the relational theory of reference is that it **cannot account for** the resistance of the world to certain representations, and thus for **representational failures** or m/'sinterpretations. Worldly resistance is most obvious in nature: whether our discourse says so or not, pigs can't fly. But examples abound in society too. In 1519 **Montezuma faced the same** kind of **epistemological problem** facing social scientists today: **how to refer to people who**, in his case, **called themselves Spaniards**. Many representations were conceivable, and no doubt the one he chose - that they were gods - drew on the discursive materials available to him. So why was he killed and his empire destroyed by an army hundreds of times smaller than his own? The realist answer is that **Montezuma was** simply **wrong: the Spaniards were not gods, and had come** instead **to conquer his empire**. Had Montezuma adopted this alternative representation of what the Spanish were, he might have prevented this outcome because that representation would have corresponded more to reality. The reality of the conquistadores did not force him to have a true representation, as the picture theory of reference would claim, but it did have certain effects - whether his discourse allowed them or not. **The external world** to which we ostensibly lack access, in other words. often frustrates or **penalizes representations**. **Postmodernism gives us no insight into why this is so**, and indeed, rejects the question altogether.33 The description theory of reference favored by empiricists focuses on sense-data in the mind while the relational theory of the postmoderns emphasizes relations among words, but they are similar in at least one crucial respect: neither grounds meaning and truth in an external world that regulates their content.34 Both privilege epistemology over ontology. What is needed is a theory of reference that takes account of the contribution of mind and language yet is anchored to external reality. The realist answer is the causal theory of reference. According to the causal theory the meaning of terms is determined by a two-stage process.35 First there is a "baptism/' in which some new referent in the environment (say, a previously unknown animal) is given a name; then this connection of thing-to-term is handed down a chain of speakers to contemporary speakers. Both stages are causal, the first because the referent impressed itself upon someone's senses in such a way that they were induced to give it a name, the second because the handing down of meanings is a causal process of imitation and social learning. Both stages allow discourse to affect meaning, and as such do not preclude a role for "difference" as posited by the relational theory. Theory is underdetermined by reality, and as such the causal theory is not a picture theory of reference. However, conceding these points does not mean that meaning is entirely socially or mentally constructed. In the realist view beliefs are determined by discourse and nature.36 This solves the key problems of the description and relational theories: our ability to refer to the same object even if our descriptions are different or change, and the resistance of the world to certain representations. Mind and language help determine meaning, but **meaning is** also **regulated by a mind-independent, extra-linguistic world**.

Demanding politically-correct private attitudes by critiquing discourse entrenches intolerance. **Berkowitz 8** writes[[43]](#footnote-43)

Then, in the second half of the 20th century, the civil rights movement, beginning with blacks but soon encompassing women, ethnic minorities, and recently gays and lesbians, made good on the American promise of equality under law to members of groups long denied it. However, this happy progress has raised a new and sharpened concern among many progressive thinkers over the extent to which toleration need transcend lifting improper legal liabilities to also include changes of heart. **Most** such **think**ers take it as a matter of course **that those once excluded** or subordinated **by law must** not only **be recognized as equals** in public life, but be warmly embraced by fellow citizens and made welcome in the private sphere, as well. **Toleration** today **must confront** two **additional challenges**, one a perverse outgrowth of the civil rights movement and the cultural revolution of the sixties, the other intertwined with grave national security concerns. **Political correctness**—the attempt, usually by Left-liberal authorities of various sorts, to suppress critical expression and thinking, the better to inculcate their own moral and political judgments—**has spread from the universities** where it was incubated **to** our primary schools, mainstream **media and pop**ular **culture.** Recent revelations about the University of Delaware’s residence hall program, which administered “treatment” to reshape students’ attitudes about race, sex, morals and the environment through mandatory training sessions and the regulation of dorm life, is only the latest outrage to make headlines (“University of Delaware Accused of Indoctrinating Students”, Associated Press, October 31, 2007). The quest for a perfect equality, one that rights historic wrongs and settles old scores, has something of a liberal root. But the **policing** of **hearts and minds in the name of** greater **sensitivity and inclusiveness is illiberal in intent and effect. Political correctness licenses**—and seeks to enforce **through stigma, ostracism and**, where possible, rules, regulations and **law**—**intolerance for dissenting opinion.**

### General Perms

[Omitted]

### WTO Neolib Add-On

#### WTO Link

The PP generates momentum to shut down the WTO.

**Mokhiber and Weissman 99** write[[44]](#footnote-44)

**The WTO eviscerates the Precautionary Principle**. **WTO rules** generally **block countries from acting in response to potential risk** -- requiring a probability before governments can move to resolve harms to human health or the environment. The WTO squashes diversity. WTO rules establish international health, environmental and other standards as a global ceiling through a process of "harmonization;" countries or even states and cities can only exceed them by overcoming high hurdles. The WTO operates in secrecy. Its tribunals rule on the "legality" of nations' laws, but carry out their work behind closed doors**. The WTO limits governments' ability to use their purchasing dollar for** human rights, **environmental,** worker rights and other non-commercial **purposes.** In general**, WTO rules state that governments can make purchases based only on quality and cost** considerations. The WTO disallows bans on imports of goods made with child labor. In general, WTO rules do not allow countries to treat products differently based on how they were produced -- irrespective of whether made with brutalized child labor, with workers exposed to toxics or with no regard for species protection. The WTO legitimizes life patents. WTO rules permit and in some cases require patents or similar exclusive protections for life forms. Some of these problems, such as the WTO's penchant for secrecy, could potentially be fixed, but the core problems -- **prioritization of commercial** over other **values,** the constraints on democratic decision-making **and** the **bias against local economies** -- cannot, for they **are inherent in the WTO itself. Because of these** unfixable **problems, the W**orld **T**rade **O**rganization **should be shut down,** sooner rather than later. That doesn't mean interim steps shouldn't be taken. It does mean that **beneficial reforms will** focus not on adding new areas of competence to the WTO or enhancing its authority, even if the new areas appear desirable (such as labor rights or competition). Instead, the reforms to pursue are those that reduce or **limit the WTO's power -- for example, by denying it** the **authority to invalidate laws passed pursuant to international environmental agreements,** limiting application of WTO agricultural rules in the Third World, or eliminating certain subject matters (such as essential medicines or life forms) from coverage under the WTO's intellectual property agreement. **These measures** are necessary and desirable in their own right, and they **would help generate momentum to close down the WTO.**

The WTO promotes neolib globally which causes poverty and income inequality, kills growth and props up dictators.

**Makwana 6** writes[[45]](#footnote-45)

The thrust of international policy behind the phenomenon of economic globalization is neoliberal in nature. Being hugely profitable to corporations and the wealthy elite, **neolib**eral **policies are propagated through the** IMF, World Bank and **WTO. Neolib**eralism **favours the free-market as the most efficient method of** global **resource allocation**. Consequently it favours large-scale, corporate commerce and the privatization of resources. There has been much international attention recently on neoliberalism. Its ideologies have been rejected by influential countries in Latin America and its moral basis is now widely questioned. Recent protests against the WTO, IMF and World Bank were essentially protests against the neoliberal policies that these organizations implement, particularly in low-income countries. The neoliberal experiment has failed to combat extreme poverty, has exacerbated global inequality, and is hampering international aid and development efforts. This article presents an overview of neoliberalism and its effect on low income countries. Introduction After the Second World War, corporate enterprises helped to create a wealthy class in society which enjoyed excessive political influence on their government in the US and Europe. Neoliberalism surfaced as a reaction by these wealthy elites to counteract post-war policies that favoured the working class and strengthened the welfare state. Neoliberal policies advocate market forces and commercial activity as the most efficient methods for producing and supplying goods and services. At the same time they shun the role of the state and discourage government intervention into economic, financial and even social affairs. The process of economic **globalization is driven by this ideology**; removing borders and barriers between nations so that market forces can drive the global economy. The policies were readily taken up by governments and still continue to pervade classical economic thought, allowing corporations and affluent countries to secure their financial advantage within the world economy. The policies were most ardently enforced in the US and Europe in the1980s during the Regan–Thatcher–Kohl era. These leaders believed that expanding the free-market and private ownership would create greater economic efficiency and social well-being. The resulting deregulation, privatization and the removal of border restrictions provided fertile ground for corporate activity, and over the next 25 years corporations grew rapidly in size and influence. Corporations are now the most productive economic units in the world, more so than most countries. With their huge financial, economic and political leverage, they continue to further their neoliberal objectives. There is a consensus between the financial elite, neoclassical economists and the political classes in most countries that neoliberal policies will create global prosperity. So entrenched is their position that this view determines the policies of the international agencies (IMF, World Bank and WTO), and through them dictates the functioning of the global economy. Despite reservations from within many UN agencies, neoliberal policies are accepted by most development agencies as the most likely means of reducing poverty and inequality in the poorest regions. There is a huge discrepancy between the measurable result of economic globalization and its proposed benefits. **Neolib**eral **policies** have unarguably generated massive wealth for some people, but most crucially, they **have been unable to benefit those** living **in** extreme **poverty** who are most in need of financial aid. Excluding China, annual economic growth in developing countries between 1960 and 1980 was 3.2%. This dropped drastically between 1980 and 2000 to a mere 0.7 %. This second period is when neoliberalism was most prevalent in global economic policy. (Interestingly, China was not following the neoliberal model during these periods, and its economic growth per capita grew to over 8% between 1980 and 2000.) **Neolib**eralism **has also been unable to address growing** levels of **global inequality.** Over the last 25 years, the income inequalities have increased dramatically, both within and between countries. Between 1980 and 1998, the income of richest 10% as share of poorest 10% became 19% more unequal; and the income of richest 1% as share of poorest 1% became 77% more unequal (again, not including China). The **shortcomings of neolib**eral policy **are** also **apparent in** the well documented **economic disasters suffered by** countries in **Latin America and South Asia** in the 1990s. These **countries were left with no choice but to follow** the neoliberal model of **privatization and deregulation, due to** their **financial problems and pressure** from the IMF. Countries such as Venezuela, Cuba, Argentina and Bolivia have since rejected foreign corporate control and the advice of the IMF and World Bank. Instead they have favoured a redistribution of wealth, the re-nationalization of industry and have prioritized the provision of healthcare and education. They are also sharing resources such as oil and medical expertise throughout the region and with other countries around the world. The dramatic economic and social improvement seen in these countries has not stopped them from being demonized by the US. Cuba is a well known example of this propaganda. Deemed to be a danger to ‘freedom and the American way of life’, Cuba has been subject to intense US political, economic and military pressure in order to tow the neoliberal line. Washington and the mainstream media in the US have recently embarked on a similar propaganda exercise aimed at Venezuela’s president Chavez. This over-reaction by Washington to ‘economic nationalism’ is consistent with their foreign policy objectives which have not changed significantly for the past 150 years. **Securing resources** and economic dominance **has been** and continues to be **the US**A**’s main economic objective**. According to Maria Páez Victor: “Since 1846 the United States has carried out no fewer than 50 military invasions and destabilizing operations involving 12 different Latin American countries. Yet, none of these countries has ever had the capacity to threaten US security in any significant way. The US intervened because of perceived threats to its economic control and expansion. **For this reason it has** also **supported** some of the region’s most **vicious dictators such as** Batista, Somoza, **Trujillo, and Pinochet**.” As a result of corporate and US influence, the key **international bodies that developing countries are forced to turn to for assistance**, such as the World Bank and IMF, **are major exponents of** the **neolib**eral agenda. The WTO openly asserts its intention to improve global business opportunities; the IMF is heavily influenced by the Wall Street and private financiers, and the World Bank ensures corporations benefit from development project contracts. They all gain considerably from the neo-liberal model.

#### RE Neolib Link

Resource extraction is neoliberal. Corporations and the state use violence to suppress pro-environment indigenous protests. **Downey et al. 10** writes[[46]](#footnote-46)

Of course, transportation technology alone does not ensure access to affordable raw materials, especially when those materials are located in other nations or in areas controlled by other groups. Thus, since World War II and the breakup of Europe’s colonial empires,4 **wealthy nations and corporations**, which consume the bulk of the world’s natural resources (Hawken, Lovins, & Lovins, 1999; Speth, 2005), **have relied on** a combination of mechanisms that they control, including ideology (e.g., **neolib**eralism; Goldman, 2005), debt (Bello et al., 1999; Clark & Foster, 2009), agricultural research institutes (Foster, 1994), export credit (Evans, Goodman, & Lansbury, 2002), political risk insurance (Moody, 2005, 2007), the WTO (Wallach & Woodall, 2004), the World Bank, and the IMF (Bello et al., 1999; Goldman, 2005), to ensure their continued access to and control over vital raw materials. Among other things, these institutions, organizations, and ideologies have worked collectively **to** open the economies of developing nations to corporate investment, increase the flow of natural resources from developing to developed nations, create new legal structures and government institutions that facilitate foreign involvement in developing nation economies, and **garner developing nation support for** corporate activities, including **resource extraction** activities, **within their borders** (Bello et al., 1999; Goldman, 2005; Harrison, 2004; Moody, 2007; Potter, 2000; Structural Adjustment Participatory Review International Network, 2004; Toussaint, 2005; Vorley, 2004; Wallach & Woodall, 2004). However, nations and societies are not monolithic entities, and regardless of whether a government willingly or unwillingly engages in specific resource extraction activities, whether these activities are organized by local or foreign companies, or whether they occur in developed or developing nations or in nations with strong or weak legal and property rights regimes, **it is likely that** in many cases **individuals and groups will protest**, resist, or rebel against these activities. For example, protestors might be worried **about local environmental degradation** or health problems that result from resource extraction activities, they might be aggrieved by any loss of livelihood that they and their community may experience as a result of these activities, or they may be forced to relocate in order to make way for resource extraction (Structural Adjustment Participatory Review International Network, 2004). Similarly, workers hired by resource extraction firms may protest poor working conditions, local residents may receive few of the benefits but all of the burdens associated with resource extraction activities, or **local residents may be indigenous**, colonized, **or otherwise marginalized people who resent** government and **outsider intrusion** into their lives (Evans et al., 2002; Gedicks, 2001; Moody, 2007). In such instances, local and **national governments, resource** extraction **firms, or rebels who control** natural **resources may** feel that they have no choice but to **use violence** or the threat of violence **to protect their** resource extraction **activities. Violent actions** and threats of violence **might include** the **forced relocation** of local residents**;** the **use of police**, military, or mercenary forces to break up protests, arrest protestors and provide mine security; **and** the repression of local indigenous people from whose ranks protestors have emerged or might emerge. Violent actions might also include **military conflict** with groups that threaten resource extraction activities and foreign military aid and training to local police and military forces. Of course, armed violence may occur even in the absence of protest. For example, forced labor may be used to decrease labor costs or because working conditions are horrendous, and forced removal may occur in the absence of protest to either forestall protest or because there is no way to extract resources with people living on or near the extraction site. In either case, violence or threatened violence will likely be necessary because most people do not want to be forced to work or leave their homes. The use or threatened **use of violence** to gain or maintain access to vital raw materials **may** also **occur in** situations in which a resource that is viewed as being critical to national survival and economic prosperity, such as oil or water, is located in **an area** controlled by others **in which** mechanisms such as **trade liberalization or structural adjustment have not** effectively **guaranteed permanent** supplies of or **control over the resource** (see Klare, 2001, 2004, for detailed discussions of this type of situation). In such cases, governments might resort to actions such as militarily enforced trade sanctions, counterterrorism activities, proxy wars, military threats, invasion, or providing military aid and training to local police and military forces. Finally, because land and water transport is potentially subject to piracy or military disruption, governments may devote military resources toward protecting specific resource shipments (such as U.S. protection of Kuwaiti shipping during the Iraq–Iran war in the 1980s) or providing security for roads, railroads, and naval shipping lanes (Klare, 2001, 2004).5

#### Neolib Impacts

##### Creativity

Neoliberalism destroys creativity, rendering the system unsustainable.

**Connolly 13** writes[[47]](#footnote-47)

The danger of “serfdom” today, you might say, is the emergence of a regime in which a few **corporate overlords monopolize creativity** to sustain a bankrupt way of life; in which military, prison, and security budgets are increased significantly to cling to American hegemony in a world unfavorable to it; in which the element of **creativity is squeezed out of work life** for many citizens; in which the ideology of **freedom is winnowed to** a set of **consumer choices between preset options**; and in which compensatory drives to extremism in secular dogmatism and religious faith intensify. Moderate **neolib**eralism **cannot sustain itself under these circumstances**. Its erstwhile **proponents are** today **pressed either to allow a new priority** to course through them **or** to **give themselves to** an **extremism** many have heretofore hesitated to accept. But is there not also a tension in the positive account pursued here? Yes. If you embrace both an ethos of responsibility encoded into multiple interacting practices and the creative element in freedom, you have introduced a tension between these two values. **Any theory that acknowledges only one value, as radical neoliberals** tend to **do** in one way and holists in another**, is not worth its salt.** The question is how to negotiate the tension. Perhaps **the best hope is to** keep one eye on each of these values. We **keep the door open to creativity** in the practices of art, citizen movements, entrepreneurial innovations, court interpretations, sports activity, scientific experiments, religious movements, consumption choices, state modes of regulation, and the like **as we also commit ourselves to debate the quality of these innovations situationally with one eye on their probable effects** up**on the** interim **future.** That is one reason the elements of **care for the world and reflexivity are** so **important to a culture that prizes** the element of **creativity**. There is no guarantee we will always get the balance right, particularly in a world that is periodically jolted by surprises. But at least we will have committed ourselves to pay due attention to the several elements in play, keeping in mind that both the element of creativity and participating with dignity in a larger system help to make life worth living.

Creativity is key to value to life. **Connolly 13** writes[[48]](#footnote-48)

If **creativity finds expression in** the human estate, it will sometimes do so at surprising moments during a disruption in a practice, opening the door to a **scientific invention, a new concept,** a **political initiative,** a new **social movement,** an **artistic innovation, market spontaneity,** a **language change**, a cooking invention, teaching improvisation, a new type of film scene, a musical production, the use of new media, or the invention of a new product. And so on endlessly. Our **identification with life** – our tacit sense of belonging to a human predicament **worthy of embrace** – **is partly rooted in reflexive reconsideration of** established **desires and ends. But it is grounded too in** those **uncanny** experiences of **creativity by** means of **which something new enters the world**. This may be one of the reasons people cleave to the sweetness of life. **It ties the sweetness of life to a vitality of being**, even more than to a preordained end, purpose, or “fullness” with which it is officially invested. The intimate relation between freedom and creativity is why **freedom is never sufficiently grasped by** the idea of **a lack to be fulfilled,** successful action upon **preset desires, or the drive to render the implicit explicit**. The experience of uncertainty or incompleteness is sometimes an occasion of fecundity.

Creativity is key to acts of protest that shape discourse.

**Connolly 13** writes[[49]](#footnote-49)

The basketball example already suggests that creativity and spontaneity are not confined to economic markets. So consider politics. Take that moment in feudal Ireland in which **peasants exploited by** a landlord named **Thomas Boycott creatively organized** an entire community **to stop using his products**, fomenting an innovative strategy of protest that also produced a creative innovation in language. We call such now well-honed strategies boycotts today. It is unlikely that any of those who joined the meetings to resist Thomas Boycott intended to invent a boycott before participating in that collective process of gestation. Or consider the dispersed, illegal minority that organized and sustained an underground railroad to provide those striving to escape plantation slavery a route marked by periodic tunnels, river crossings, overground trails, and save houses. Or follow the life of Frederick Douglass as he assembled creative strategies to learn how to read in a state when it was illegal to acquire such a skill. Or those who “invented” and participated in the first teach-in in American at the University of Michigan to protest the Vietnam War and to educate ill-informed citizens about its effects. Or that governor in Michigan who ordered the National Guard not to crush the 1937 sit-down strike, itself creatively organized by workers in Flint, but to protect the workers who had introduced the innovation. **Or** those **protesters in Egypt who creatively used Twitter, cell phones, and Facebook to** organize themselves and **outwit the police**. Or the gays at Stonewall who organized a series of protests after yet another violent police raid. Or Mahatma Gandhi, who roused a whole country to nonviolent resistance to free India from English imperialism. Or those students, professors, and investors in several countries who organized investment boycotts to oppose apartheid. Or multiple minorities within territorial states who have gradually found themselves shifting from seeking tolerance in a state organized around a hegemonic center to demanding a more decentered mode of pluralism that forges an ethos of agonistic respect between and among minorities of several types. And consider the shifts in language occasioned by such creative innovations, through which **a new** term or **phrase is introduced into** a web of **discourse that had heretofore seemed complete** to many**. Terms such as boycott, underground railroad,** safe house, **teach-in,** sit-down strike, sit-in, **Twitter,** Stonewall, agonistic respect, **and nonviolent resistance consolidate such innovations, rendering them ready-made possibilities** to consider **in the future**. To the extent such innovative terms stick, they augment the supply of future actions and set a state for new alternatives yet to riff upon them. The array of strategies becomes augmented, even as authorities prepare to respond in new ways to their most recent iterations. **There are certainly negative innovations** too, such as becoming a scab, inventing fracking, inventing the Guantanamo Gulag, or organizing a neoliberal Tea Party to protest a new regime right after the last regime has presided over an economic meltdown. **But noble innovations must** also **be listed** from time to time, particularly **as you engage** a philosophy of **neolib**eralism **that both celebrates spontaneity and limits its application** so **severely**. Good night, Professor Friedman. Good morning, Mr. Hayek.

##### Extinction

Neoliberal ideology makes extinction inevitable. It sidelines concerns of ecological sustainability through unhindered pursuit of resource extraction and leads to war.

**Bristow 10** writes[[50]](#footnote-50)

In recent years, regional development strategies have been subjugated to the hegemonic discourse of competitiveness, such that the ultimate objective for all regional development policy-makers and practitioners has become the creation of economic advantage through superior productivity performance, or the attraction of new ﬁrms and labour (Bristow, 2005). A major consequence is the developing ‘ubiquitiﬁcation’ of regional development strategies (Bristow, 2005; Maskell and Malmberg, 1999). This reﬂects the status of competitiveness as a key discursive construct (Jessop, 2008) that has acquired hugely signiﬁcant rhetorical power for certain interests intent on reinforcing capitalist relations (Bristow, 2005; Fougner, 2006). Indeed, the competitiveness hegemony is such that **many policies** previously **considered** only **indirectly relevant to unfettered** economic **growth tend to be hijacked in support of competitiveness agendas** (for example Raco, 2008; also Dannestam, 2008). This paper will argue, however, that a particularly narrow **discourse of ‘competitiveness’ has** been constructed that has a number of **negative connotations for** the ‘resilience’ of regions. Resilience is deﬁned as the region’s ability to experience **positive economic success that is socially inclusive, works within environmental limits and** which **can ride global economic punches** (Ashby et al., 2009). As such, resilience clearly resonates with literatures on sustainability, localisation and diversiﬁcation, and the developing understanding of regions as intrinsically diverse entities with evolutionary and context-speciﬁc development trajectories (Hayter, 2004). In contrast, the **dominant discourse of competitiveness is ‘placeless’ and increasingly associated with globalised, growth-ﬁrst and environmentally malign agendas** (Hudson, 2005). However, this paper will argue that the relationships between competitiveness and resilience are more complex than might at ﬁrst appear. Using insights from the Cultural Political Economy (CPE) approach, which focuses on understanding the construction, development and spread of hegemonic policy discourses, the paper will argue that the dominant discourse of competitiveness used in regional development policy is narrowly constructed and is thus insensitive to contingencies of place and the more nuanced role of competition within economies. This leads to problems of resilience that can be partly overcome with the development of a more contextualised approach to competitiveness. The paper is now structured as follows. It begins by examining the developing understanding of resilience in the theorising and policy discourse around regional development. It then describes the CPE approach and utilises its framework to explain both how a narrow conception of competitiveness has come to dominate regional development policy and how resilience inter-plays in subtle and complex ways with competitiveness and its emerging critique. The paper then proceeds to illustrate what resilience means for regional development ﬁrstly, with reference to the Transition Towns concept, and then by developing a typology of regional strategies to show the different characteristics of policy approaches based on competitiveness and resilience. Regional resilience Resilience is rapidly emerging as an idea whose time has come in policy discourses around localities and regions, where it is developing widespread appeal owing to the peculiarly powerful combination of transformative pressures from below, and various catalytic, crisis-induced imperatives for change from above. It features strongly in policy discourses around environmental management and sustainable development (see Hudson, 2008a), but has also more recently emerged in relation to emergency and disaster planning with, for example ‘Regional Resilience Teams’ established in the English regions to support and co-ordinate civil protection activities around various emergency situations such as the threat of a swine ﬂu pandemic. The discourse of resilience is also taking hold in discussions around desirable local and regional development activities and strategies. The recent global ‘credit crunch’ and the accompanying in-crease in livelihood insecurity has highlighted the advantages of those local and regional economies that have greater ‘resilience’ by virtue of being less dependent upon globally footloose activities, hav-ing greater economic diversity, and/or having a de-termination to prioritise and effect more signiﬁcant structural change (Ashby et al, 2009; Larkin and Cooper, 2009). Indeed, **resilience features particular strongly** in the ‘grey’ literature spawned by thinktanks, consul-tancies and environmental interest groups **around the consequences of the global recession, catastrophic climate change and the arrival of** the era of **peak oil** for localities and regions with all its implications for the longevity of carbon-fuelled economies, cheap, long-distance transport and global trade. **This popularly labelled ‘triple crunch’** (New Economics Foundation, 2008) **has powerfully illuminated the potentially disastrous material consequences of the** voracious **growth imperative at the heart of** neoliberalism and **competitiveness, both in the form of resource constraints (especially food security) and** in **the inability** of the current system **to manage global ﬁnancial and ecological sustainability.** In so doing, it appears to be galvinising previously disparate, fractured debates about the merits of the current system, and challenging public and political opinion to develop a new, global concern with frugality, egalitarianism and localism (see, for example Jackson, 2009; New Economics Foundation, 2008).

## Solvency Frontline

### Environment

The PP is key to solving environmental harms.

**Raffensperger 4** gives four warrants[[51]](#footnote-51)

There are four ways of implementing the Precautionary Principle. First is to set goals: Where do you want to go? What do you want the world to look like? In the United States, we gather a lot of statistics, but we don't say, "Here's where we want to go, here's what the world should look like." We don't say, for example, "Let's prevent all preventable asthmas," and then figure out how we're going to reach that goal. **The P**recautionary **P**rinciple says set your goals and you'll find ways to meet those goals. It really **is a way to spur innovation and progress by setting** those kinds of **goals** rather than just letting whatever happens happen. The second mode of implementation is to reverse the burden of proof, especially for chemicals, and other emerging and novel technologies. **For so long, industry has received the benefit of the doubt**; if regulation is going to threaten business, then regulation should be sacrificed. But what that has meant is that we have sacrificed our children's brains, our women's breasts, our men's prostates on that alter of economic development. **The P**recautionary **P**rinciple **says**, no, public health and **the environment get the benefit of the doubt, not the** almighty **dollar.** And there are a lot of ways to do that. **The P**recautionary **P**rinciple **asserts a responsibility on** the part of industry or the **proponents of a technology or activity, to test that** technology or activity. So for instance, the REACH program proposed in Europe for chemicals says, if you don't test your chemicals, you can't market in Europe. What a good idea! That's reversing the burden of proof. It says if you haven't even tested your chemical, don't try and sell it to us, and then, if we're injured, make us go to court and test the chemical to show it is unsafe. The REACH program says to industry, you've got the obligation; this is your responsibility. This is a complete turn around compared to what is typical in the United States. The third element of the Precautionary Principle is looking for the safest alternative. If you've set a goal to achieve some end, which alternative gets you to the goal? This approach means you're going to find much better ways to do things; it drives innovation. Pursuit of the safest alternative is creating whole new fields like green chemistry and green engineering. They are taking the dirtiest chemicals, throwing them out and changing policy and industry in some really wonderful ways. **Choosing the safest alternative is** in many ways **the heart-beat of the P**recautionary **P**rinciple**. The final element of the P**recautionary **P**rinciple **is democracy. If we're faced with scientific uncertainty, we need to set goals**, and choose the safest alternative to achieve these goals. **These processes involve** values and **ethics; it is not something that scientists or** government **bureaucrats can decide alone. We need to bring affected parties to the table. This** gives us a chance as a public to set the goals that we want to drive toward; it **helps get on the table a much wider array of options for solving problems** and looking for alternatives. So democracy is also an essential component of the Precautionary Principle.

The PP is key to solving environmental harms. Multiple warrants.

**Harari et al. 4** writes[[52]](#footnote-52)

Even without fully meeting the control, protection or prevention requirement, and being aware of our limitations while searching for mechanisms to implement and overcome these limitations, the incorporation of new elements such as **the P**recautionary **P**rinciple **may** simultaneously stimulate the design of new strategies, **develop** certain health and **environmental issues that are still pending**, include new concepts into the economic and social development model, and offer another work tool to act upon these issues. **The P**recautionary **P**rinciple, properly included within the framework of the plan required to approach health and environmental problems, **may offer** in our country new means to integrate the **general awareness** of this problem**, thereby strengthening prevention** and having a “retroactive” effect on the elimination **of risk, as well as** on **control and protection** [5–7]. **The P**recautionary **P**rinciple **helps to broaden** the **understanding of** health and **environmental problems, since it favors** the **generation of hypotheses and** the **adoption of actions that may**, by themselves, **help to make people** more aware of some problems or **take** the **necessary steps** before the problem appears or becomes generalized. The socio-economic development model may also be influenced by this Principle, since it brings new expectations and perspectives to science, technology and society. Application of the Precautionary Principle becomes an active tool, provided that other issues – social and economic – are taken into account, to encourage a healthy and sustainable environmental culture. In particular, the European experience helps us to follow some strategies [8]. On the other hand, the application of this Principle cannot be conceived as a mere expression of willingness. The following items are likewise required: access to information, internationally recognized reference points, compliance with ethical standards, scientific and technical resources to study the problem, human resources trained in these concepts, methods and techniques, and an extensive people’s participation. In this respect, the establishment of bridges between industrialized countries and developing countries on these issues may also have favorable consequences for all the parts concerned. The decrease or elimination of the production of hazardous substances, export control, the avoidance of toxic waste disposal in developing countries, the exchange of information, experience, methods and techniques, the strengthening of the activities and independence of international organizations, such as the World Health Organization or the International Labour Organization, which are currently pressured by industry and international trade organizations to impose their own standards, are all tasks required to turn globalization not only into an easy way of goods circulation but also a model of world integration in a socially and environmen- T H E P R E C A U T I O N A R Y P R I N C I P L E R.A. HARARI, ET AL. IJOMEH 2004; 17(1) 191 tally sustainable as well as economically more correct manner. The Precautionary Principle applied at an international level, obtaining the commitment of scientists and technicians and their organizations, and stimulating citizens’ participation in each country, may also be one of the ways and means to allow growth in every respect. Only if this were to become a resource for the industrialized countries, could it turn into a defense mechanism that might lead them to broaden the distances between North and South and among developed countries and poor countries. The **introduction of the P**recautionary **P**rinciple **in legislation, in** the **negotiating processes,** and in the approach to conflicts, **may** be a way to **favor** the **solution of problems,** thereby **benefiting the environment** and health of the community.

The PP is key to solving environmental harms. We can’t afford to wait for scientific certainty. **SEHN 98** writes[[53]](#footnote-53)

What is the precautionary principle? A comprehensive definition of the precautionary principle was spelled out in a January 1998 meeting of scientists, lawyers, policy makers and environmentalists at Wingspread, headquarters of the Johnson Foundation in Racine, Wisconsin. **The Wingspread Statement** on the Precautionary Principle, **summarizes the principle** this way**: "When an activity raises threats of harm to the environment** or human health, **precautionary measures should be taken even if** some **cause and effect relationships are not fully established scientifically."** Key elements of the principle include taking precaution in the face of scientific uncertainty; exploring alternatives to possibly harmful actions; placing the burden of proof on proponents of an activity rather than on victims or potential victims of the activity; and using democratic processes to carry out and enforce the principle - including the public right to informed consent. Is there some special meaning for "precaution"? It's the common sense idea behind many adages: "Be careful." "Better safe than sorry." "Look before you leap." "First do no harm." What about "scientific uncertainty"? Why should we take action before science tells us what is harmful or what is causing harm? **Sometimes if we wait for proof it is too late**. Scientific standards for demonstrating cause and effect are very high. For example, smoking was strongly suspected of causing lung cancer long before the link was demonstrated conclusively - that is, to the satisfaction of scientific standards of cause and effect. By then, many smokers had died of lung cancer. But many other people had already quit smoking because of the growing evidence that smoking was linked to lung cancer. These people were wisely exercising precaution despite some scientific uncertainty. **Often a problem** - such as a cluster of cancer cases or global warming - **is too large**, its causes too diverse, or the effects too long term **to be sorted out with scientific experiments** that would prove cause and effect. It's hard to take these problems into the laboratory. Instead, **we have to rely on** observations, case studies or **predictions based on current knowledge.** According to the precautionary principle, when substantial scientific evidence of any kind gives us good reason to believe that an activity, technology or substance may be harmful, we should act to prevent harm. **If we always wait for scientific certainty, people may suffer and die, and damage to the natural world may be irreversible.** We have lots of environmental regulations. Aren't we already exercising precaution? In some cases, to some extent, yes. When federal money is to be used in a major project, such as building a road on forested land or developing federal waste programs, the planners must produce an "environmental impact statement" to show how it will affect the surroundings. Then the public has a right to help determine whether the study has been thorough and all the alternatives considered. That is a precautionary action. But most environmental regulations, such as the Clean Air Act, the Clean Water Act and the Superfund Law, are aimed at cleaning up pollution and controlling the amount of it released into the environment. They regulate toxic substances as they are emitted rather than limiting their use or production in the first place. These laws have served an important purpose - they have given us cleaner air, water and land. But they are based on the assumption that humans and ecosystems can absorb a certain amount of contamination without being harmed. We are now learning how difficult it is to know what levels of contamination, if any, are safe. Many of our food and drug laws and practices are more precautionary. Before a drug is introduced into the marketplace, the manufacturer must demonstrate that it is safe and effective. Then people must be told about risks and side effects before they use it. But there are some major loopholes in our regulations. If the precautionary principle were universally applied, many toxic substances, contaminants, and unsafe practices would not be produced or used in the first place. The precautionary principle concentrates on prevention rather than cure. How would **the p**recautionary **p**rinciple change that without bringing the economy to a halt? It **would encourage** the **exploration of** alternatives - better, safer, cheaper ways to do things- and the development of **"cleaner" products and technologies.** Sometimes simply slowing down in order to learn more about potential harm is the best alternative. **It would shift the burden of proof** from the public **to proponents of a technology.** The principle would ensure that the public knows about and has a say in the deployment of technologies that may be hazardous. **Proponents would have to demonstrate** through an open process **that** a **tech**nology **was safe or necessary and that no better alternatives were available.**

The PP is key to sustainability – takes into account unforeseen risks and shifts the burden of proof. **Grant and Quiggin 13** writes[[54]](#footnote-54)

6. Concluding comments Informally stated, **the P**recautionary **P**rinciple **has strong intuitive appeal**, particularly **in** the context of **environmental regulation. In dealing with** complex, **fragile and poorly understood natural systems, it seems to make sense ‘to err on the side of caution.’** However, this way of putting things points out the difficulties in formalizing the Precautionary Principle. ‘To err’ means to commit an error, and it is obviously difficult to include a prescription for error in a formal theory of decision under uncertainty. Yet **decisions are prone to errors arising from** an incomplete understanding of the problem at hand, and of the likelihood that some **contingencies** will **not** be **taken into account. It seems desirable to take account of this reality** in formulating a procedure for making decisions. In this paper, we have addressed the question in relation to the standard Bayesian model of decision theory, developed in the framework of an extensive-form game. We have argued that the Precautionary Principle is best understood, not as a modification of Bayesian decision theory, but rather as a heuristic constraint on the application of that theory; that is, as a response to the recognition that the outcomes of decisions may be affected by unforeseen contingencies. Heuristic constraints such as the Precautionary Principle must be satisfied before it is appropriate to apply the tools of Bayesian decision theory. **The P**recautionary **P**rinciple **is most commonly applied in relation to** interactive decisions, involving judgments as to whether or not to proceed with projects or innovations that may pose **unforeseen risks**. In this context, **the P**recautionary **P**rinciple may be regarded as a procedural rule that **places** the **burden of proof on proponents of activities subject to poorly-understood risks**. Under the Precautionary Principle, **proponents must convince policy makers** not only **that** the **expected benefits exceed** the **expected costs but also that the project will not be subject to** any **significant unanticipated adverse outcomes.**

### Government Regs Good

Government regulations through the PP are essential.

**Sachs 11** writes[[55]](#footnote-55)

Critics are overlooking that **the Principle can provide** a workable **accommodation between the needs of industry and** the need to ensure harm prevention and **adherence to ecological limits.** Specifically, **putting government in a** risk **gatekeeping role serves** several **important purposes, including:**  **Ensuring that the applicant** is competent to engage in the activity and **has** the **required expertise and resources;**  **Regulating** the **location of** potentially **risky activities** and ensuring that they occur in places where risks to the public are minimized;  **Ensuring that activities** presenting serious threats to public health or the environment can be prohibited (or **have safety precautions** placed on them) **before harm occurs;**  **Ensuring, through** establishing **a uniform review process** for every applicant**, that the cumulative amount of a risky activity does not exceed limits that would be damaging to the environment** or human health; **and**  **Minimizing risks while further research is conducted and making** that **research the responsibility of firms that will benefit the most** from the activity. I am not trying to defend every permitting and licensing scheme, of course. **Government permitting** programs **can be burdensome** and prone to political favoritism and rent-seeking behavior. They are often complex. If inadequately funded and staffed, a governmental review may be no more than a fig leaf of risk management (witness the Deepwater Horizon Oil Spill and the lax oversight of the Minerals Management Service). **But** the long-standing practice in U.S. law of establishing government agencies as ex ante gatekeepers for risk does suggest that **the** Strong **P**recautionary **P**rinciple **cannot be** so **easily dismissed**. It is not as alien to U.S. law and values as the critics would have us believe, and it hardly seems “paralyzing” in the many contexts in which it has been applied.

## Future Generations Good

### PP Link

The PP recognizes our obligation to future generations.

**Raffensperger 4** writes[[56]](#footnote-56)

The Hawaiian and other state constitutions, as well as a lot of common law, say that **states have a responsibility to manage** natural **resources** and common assets **as a matter of the public trust** -- these are to be held in trust **for** this and **future generations.** In a lawsuit, Hawaii was challenged on how it was applying this constitutional provision. Hawaii said that in order to manage the commons and the common wealth, we've got to use the Precautionary Principle. **If we're going to pass** the **natural resource** -- in this case water -- **on to our children** in as good as shape as we got it, **we're going to have to act in the face of uncertainty. So** you get a longer timeframe, you get an argument against privatization, and **you get a requirement to use the P**recautionary **P**rinciple**.**

### Law

Our obligation to protect future generations from environmental harm is established by domestic and ILaw. **SEHN 8** writes[[57]](#footnote-57)

**Legal documents**, both international and domestic, **endorse** principles for **protecting** the needs and welfare of **future generations**, especially as **related to the environment**. They have established the foundation upon which the Model Constitution and Statute stand. In an International Court of Justice opinion, Judge Christopher Weeramantry described the respect for future generations in indigenous cultures around the world.2 In recent decades, legal instruments have increasingly referenced future generations. Principle 1 of **the Stockholm Declaration**, adopted during the 1972 United Nations Conference on the Human Environment, states: “[Humanity] bears a solemn responsibility to protect and improve the environment for present and future generations.” Twenty years later, **the Rio Declaration** reinforced this concept of owing a duty to all people, both today and in the future, saying, “The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.” The 1992 **UN** Framework **Convention on Climate Change** articulates how states parties must work for the “benefit” of future generations: “The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”5 These declarations and conventions **exemplify how i**nternational **law has embraced** the principle of **protecting future generations**. Domestic law from a variety of countries also enshrines this respect for the needs of future generations. **Some nations have** already **included protections in their constitutions**. The Norwegian Constitution states: “Every person has a right to an environment that is conducive to health and to a natural environment whose productivity and diversity are maintained. Natural resources should be managed on the basis of comprehensive long-term considerations whereby this right will be safeguarded for future generations as well.”7 Some U.S. jurisdictions also recognize the place of future generations. The Indiana State Code describes the purposes of environmental policy as “to preserve, protect, and enhance the quality of the environment so that, to the extent possible, future generations will be ensured clean air, clean water, and a healthful environment.”8 Such pieces of domestic legislation further illustrate the legal underpinnings for protecting future generations.

Sustainable development for future generations is established by ILaw.

**SEHN 8** writes[[58]](#footnote-58)

The principle of **sustainable development**, frequently cited in international instruments, **exemplifies** the **consideration given to** the needs of **future generations**. The Report of the World Commission on Environment and Development (known as the Brundtland Report), which offers the most accepted definition of sustainable development, uses the term to describe “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”10 Similarly, **the Convention on** the Protection and Use of **Transboundary Watercourses and** International **Lakes provides: “Water resources shall be managed** so that the needs of the present generation are met **without compromising** the **ability of future generations to meet their** own **needs**.”11 Such provisions, especially because of the phrase “without compromising,” subject present generations’ needs to those of future generations. Using a slightly different formulation, **the Rio Declaration** on Environment and Development, **adopted by about 178 countries** at the 1992 Earth Summit, **declares**: “The right to **development must be fulfilled** so as **to equitably meet** developmental and environmental **needs of present and future generations**.”12 **The UN** Framework **Convention on Climate Change**, the major international climate change initiative, **articulates how parties must work for** the “benefit” of **future generations**: “The Parties should protect the climate system for the benefit of present and future generations of humankind, on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities.”13 The latter two instruments emphasize a balance between present and future yet still give the latter equal weight. **At least five** international **treaties and three declarations refer to future generations.**

#### PP Good – ILaw

The PP is supported by multiple international treaties. **Tickner et al. 99** writes[[59]](#footnote-59)

Uses of **the P**recautionary **P**rinciple **in International Treaties** and Agreements **Ozone Layer Protocol** Parties to this protocol . . . determined to protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations. . . . Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 26 ILM 1541 **Second North Sea Declaration** In order to protect the North Sea from possibly damaging effects of the most dangerous substances...a precautionary approach is addressed which may require action to control inputs of such substances even before a causal link has been established by absolutely clear scientific evidence. **Ministerial Declaration** Calling **for Reduction of Pollution**, Nov. 25, 1987, 27 ILM 835. United Nations Environment Programme Recommends that all Governments adopt "the principle of precautionary action" as the basis of their policy with regard to the prevention and elimination of marine pollution. Report of the Governing Council on the Work of its Fifteenth Session, United Nations Environment Programme, UN GAOR, 44th Sess. Supp No 25, 12th mtg at 153, UN DOC A44/25 (1989). **Nordic Council's Conference** And taking into account....the need for an effective precautionary approach, with that important principle intended to safeguard the marine ecosystem by, among other things, eliminating and preventing pollution emissions where there is reason to believe that damage or harmful effects are likely to be caused, even where there is inadequate or inconclusive scientific evidence to prove a causal link between emissions and effects. Nordic Council's International Conference on Pollution of the Seas: Final Document Agreed to Oct. 18, 1989, in Nordic Action Plan on Pollution of the Seas, 99 app. V (1990) PARCOM Recommendation 89/1 - 22 June, 1989 The Contracting Parties to **the Paris Convention** for the Prevention of Marine Pollution from Land-Based Sources: Accept the principle of safeguarding the marine ecosystem of the Paris Convention area by reducing at source polluting emissions of substances that are persistent, toxic, and liable to bioaccumulate by the use of the best available technology and other appropriate measures. This applies especially when there is reason to assume that certain damage or harmful effects on the living resources of the sea are likely to be caused by such substances, even where there is no scientific evidence to prove a causal link between emissions and effects (the principle of precautionary action). **Third North Sea Conference** The participants...will continue to apply the precautionary principle, that is to take action to avoid potentially damaging impacts of substances that are persistent, toxic, and liable to bioaccumulate even where there is no scientific evidence to prove a causal link between emissions and effects Final Declaration of the Third International Conference on Protection of the North Sea, Mar. 7-8, 1990. 1 YB Int'l Envtl Law 658, 662-73 (1990). **Bergen Declaration on Sustainable Development** In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent, and attack the causes of environmental degradation. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. Bergen Ministerial Declaration on Sustainable Development in the ECE Region. UN Doc. A/CONF.151/PC/10 (1990), 1 YB Intl Envtl Law 429, 4312 (1990) **Second World Climate Conference** In order to achieve sustainable development in all countries and to meet the needs of present and future generations, precautionary measures to meet the climate challenge must anticipate, prevent, attack or minimize the causes of, and mitigate the adverse consequences of, environmental degradation that might result from climate change. Where there are threats of serious of irreversible damage, lack of full scientific certainty should not be used as a reasons for postponing cost-effective measures to prevent such environmental degradation. The measure adopted should take into account different socioeconomic contexts. Ministerial Declaration of the Second World Climate Conference (1990). 1 YB Intl Envtl Law 473, 475 (1990) **Bamako Convention on** Transboundary Hazardous **Waste in**to **Africa** Each Party shall strive to adopt and implement the preventive, precautionary approach to pollution problems which entails, inter alia, preventing the release into the environment of substances which may cause harm to humans or the environment without waiting for scientific proof regarding such harm. The Parties shall cooperate with each other in taking appropriate measures to implement the precautionary principle to pollution prevention through the application of clean production methods, rather than the pursuit of a permissible emissions approach based on assimilative capacity assumptions. Bamako Convention on Hazardous Wastes within Africa, Jan. 30, 1991, art. 4, 30 ILM 773. OECD Council Recommendation The Recommendation is accompanied by Guidance which is an integral part of the Recommendation. It lists some essential policy aspects including: the absence of complete information should not preclude precautionary action to mitigate the risk of significant harm to the environment. OECD Council Recommendation C(90)164 on Integrated Pollution Prevention and Control - January 1991 Maastricht Treaty on the European Union Community policy on the environment...shall be based on the precautionary principle and on the principles that preventive actions should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay. Treaty on the European Union, Sept. 21, 1994, 31 ILM 247, 285-86. Helsinki Convention on the Protection and Use of Transboundary Watercourses and International Lakes The precautionary principle, by virtue of which action to avoid the potential transboundary impact of the release of hazardous substances shall not be postponed on the ground that scientific research has not fully proved a causal link between those substances, on the one hand, and the potential transboundary impact, on the other hand. **Convention on** the Protection and Use of **Transboundary Watercourses and** International **Lakes**, Mar. 17, 1992, 31 ILM 1312. **The Rio Declaration** on Environment and Development In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. Rio Declaration on Environment and Development, June 14, 1992, 31 ILM 874. Climate Change Conference The parties should take precautionary measures to anticipate, prevent, or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures, taking into account that policies and measures to deal with climate change should be cost-effective so as to ensure global benefits at the lowest possible cost. To achieve this, such policies and measures should take into account different socioeconomic contexts, be comprehensive, cover all relevant sources, sinks and reservoirs of greenhouse gases and adaptation, and comprise all economic sectors. Efforts to address climate change may be carried out cooperatively by interested parties. Framework **Convention on Climate Change**, May 9, 1992, 31 ILM 849. **UNCED Text on Ocean Protection** A precautionary and anticipatory rather than a reactive approach is necessary to prevent the degradation of the marine environment. This requires inter alia, the adoption of precautionary measures, environment impact assessments, clean production techniques, recycling, waste audits and minimization,, construction and/or improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances, and a comprehensive approach to damaging impacts from air, land, and water. Any management framework must include the improvement of coastal human settlements and the integrated management and development of coastal areas. UNCED Text on Protection of Oceans. UN GAOR, 4th Sess., UN Doct A/CONF.151/PC/100 Add. 21 (1991) **Energy Charter Treaty** In pursuit of sustainable development and taking into account its obligations under those international agreements concerning the environment to which it is a party, each Contracting Party shall strive to minimize in an economically efficient manner harmful Environmental Impact occurring either within or outside its Area from all operations within the Energy Cycle within its Area, taking proper account of safety. In doing so each Contracting Party shall act in a Cost-Effective manner. In its policies and actions each Contracting Party shall strive to take precautionary measures to prevent or minimize Environmental Degradation. The Contracting Parties agree that the polluter in the Areas of Contracting Parties, should, in principle, bear the cost of pollution, including transboundary pollution, with due regard to the public interest and without distorting investment in the Energy Cycle or International Trade. The Draft European Energy Charter Treaty Annex I, Sept 14, 1994, 27/94 CONF/104. U.S. President's Council on Sustainable Development There are certain beliefs that we as Council members share that underlie all of our agreements. We believe: (number 12) even in the face of scientific uncertainty, society should take reasonable actions to avert risks where the potential harm to human health or the environment is thought to be serious or irreparable. President's Council on Sustainable Development. Sustainable America: A New Consensus, 1996

### Litmus Test

Our obligation to protect future generations from environmental destruction is a litmus test for any moral theory. **Bickham 81** writes[[60]](#footnote-60)

There exists today in philosophy a question of our ethical obligations to future generations. Several different aspects of this question render it philosophically unusual. For one thing the substantive answer to the question is not in dispute. **Were someone to suggest seriously that we have no ethical obligations to future generations and** mean **by this that we need take no care for what living conditions on the planet will be in a hundred years** - that whether there would exist then, say, a lethal level of radioactivity in the atmosphere, it would be no concern of ours - **we should regard that individual as lacking one of the most basic of human ethical sensibilities.** Of course we have some serious responsibility for the future, though this does not commit us to the more particular position that we have ethical obligations to future generations. The question does not, thus, require an answer at the general level, nor am I prepared here to demarcate specifically the content of our responsibility for the future, though I shall treat of others' attempts to do so. I am interested rather in why this question should seem so mysterious at this time as to generate a dispute or issue within the philosophical community. Thus my focus will be interior to philosophy. I hope to show how the assumptions involved in raising this question in this way make it difficult for us to address the new realities with which the question is concerned. Why is this question a current one in philosophy? From a somewhat sociological perspective it is significant that John Rawls in A Theory of Justice, perhaps the most influential ethical treatise of the seventies, is the first person who seems to have dealt with the question in its current form.' I shall examine Rawls' position in detail later, but basically he treats justice among generations as involving each generation's passing on to the next a suitable accumulation of intellectual, economic, and educational "capital" so that the next can have the werewithal to continue or to establish just institutions, as well as support a reasonable standard of living.2 While the immense philosophical popularity of A Theory of Justice brought the current question to the attention of the philosophical community, most philosophers writing of the issue of ethical obligation to future generations since Rawls have seen the problem in an environmental rather than an economic context? It is clear that **our relatively new capacity for** possibly **permanent devastation of the environment has created a new ethical situation which requires a reassessment of our responsibility to the future.** Environmental pollution itself is nothing new. I am sitting a quarter of a mile from a river which has contained no life for about 80 years due to pollution from mine acid waste. In my county virtually every marketable tree was cut down between 1895 and 1915. But **until now there** just **have not been enough people nor** an **advanced enough tech**nology **to threaten a large environment with permanent destruction** or impairment. Trees grow back and mine acid waste pollution can be stopped, though it is expensive to do so. But we simply do not know how to render radioactive waste from power plants nonradioactive, or to replace the ozone layer in the atmosphere should this become depleted, or to develop an effective, economical replacement for iron. It is quite simple. **We did not have** the **responsibility for the future that we do now before we had the capacity to destroy it**. As I said earlier, our responsibility for the future in a broad sense is well recognized. What is not understood is how this responsibility is to be rationally grounded in an ethical theory. But it is becoming clear to ethicists that **the question of our obligations to the future can be seen as a litmus test for an ethical theory.** No theory can really be adequate to the contemporary situation which cannot found such obligations on its own principles. The problem is that each of the major, current ethical theories has difficulty doing this. I shall examine briefly the deontological theory and at more length the utilitarian and contractarian theories to illustrate why this is so.

### Deon

Rational agents have a duty to protect future generations by promoting life-sustaining conditions. **Godofsky 10** writes[[61]](#footnote-61)

While the natural right to life entails a duty not to cause the death of another, the right to survival requires the physical conditions needed to sustain that life. To be a human being is to act and intend to survive, whereas animals and plants survive through instinct, reflex and learned behaviors. **By acting** and intending **to survive through free will, human beings employ reason** to preserve their lives. **According to Kant,** **this establishes our infinite worth** and our ability to claim rights and possess obligatory duties. Ian Barbour argues that the fundamental equality of persons is derived from the “common nature of persons as rational beings” and the “universality of basic human capacities” which have been established to allow human beings to assert their natural right to survival (2006:113). **We can also expect that future human beings will engage in rational**, deliberate **action to preserve their existence** collectively as we currently do. **Present people can assume moral responsibility for future people, then, because we are united** as a species **through our capacity for rational agency**, rather than through a contractual, reciprocal relationship. Present people can use rational thought to identify what living conditions are necessary for future survival because we share evident physiological and biological interests as a distinct species. I reject Stephen Gardiner‟s claim that “future generations have no control over what the present generation does with that capacity…they could not in principle have any such control. They are not around to present a claim, nor to represent their interests…they have no bargaining power” (Gardiner 2002:403). In fact, Golding claims that “future generations are members of our moral community because…our social ideal is relevant to them, given what they are and their conditions of their life” (1972:361). Therefore, we can tie the natural right to survival to the fact that **we can distinguish the basic conditions of living using rational deliberation to realize our present “social ideal,”** even if this social ideal becomes more and more obscure as generations become more distant. Although future generations are certainly not able to consent to a social contract, they do have a natural right to survival using rational agency to do so. This establishes the moral obligation of present generations to treat them and their interests with equal consideration. These future people cannot make claims according to a social contract, but as Golding notes, “have a claim…whether or not [they] make the claim, demands, or [are] even able to make a claim” because we recognize them as members of our moral community with “an entitlement upon [them] to receive what is claimed from me” (1972:360). Therefore, while we do not necessarily *owe* future generations such moral consideration, we are morally obliged to act *with regard* to them (Hubin 1976:71). Although Golding defines it as “a conception of the good life for man,” in this argument is related to the natural right to survival and the conditions needed to do so (1972:360). That being said, “the potential for agency and autonomy that is attributed to future generations mandates the recognition of their rights to a natural world that is not destroyed and eroded either in the quantum of its resources or in their richness and diversity” (Jayal 2003:301). To ensure this right, **present generations must create a social ideal based on** physical, **life-sustaining circumstances that will provide future generations with** the **opportunity to live a healthy life and fulfill their central interests.** According to John Rawls, “the different temporal position of persons and generations does not in itself justify treating them differently” (1973:295). Thus, we have a duty to ensure the survival of future generations and must act to protect this right.

### Indigenous People

Virtually all indigenous cultures recognize an obligation to protect future generations.

**SEHN 8** writes[[62]](#footnote-62)

**Indigenous peoples have long articulated an obligation** of present generations **to promote** the **“welfare” of future generations**. In his concurring opinion to the 1997 International Court of Justice (“ICJ”) case concerning the Gabcíkovo- Nagymaros Project of locks and dams on the Danube river (“Gabcíkovo- Nagymaros decision”), **Judge** Christopher **Weeramantry** chronicled the concern for future generations across several continents. He **wrote: [E]xamples may be cited from nearly every traditional system**, ranging from Australasia and the Pacific Islands, through Amerindian and African cultures to those of Ancient Europe. . . . [T]hese **varied cultures were reflecting** the **ancient wisdom of the human family** which the legal systems of the time and the tribe absorbed, reflected and turned into principles whose legal validity cannot be denied.20 In North America, the Gayanshagowa, or “Great Binding Law,” which serves as **the constitution of the Confederation of** the Six Nations of **the Iroquois, defines** the **duties**, rights, and qualifications **of Iroquois lords**.21 As mentioned above, in doing so, **it establishes their obligation to take future generations’ interests into account** in their decision-making. The Speaker of the Council directs the New Lords of the Confederate Council to “[l]ook and listen for the welfare of the whole people and have always in view not only the present but also the coming generations.”22

1. Paul Rosenberg (California-based writer/activist, senior editor for Random Lengths News, and a columnist for Al Jazeera English). “Why climate deniers are winning: The twisted psychology that overwhelms scientific consensus.” Salon. April 19th, 2014. http://www.salon.com/2014/04/19/why\_climate\_deniers\_are\_winning\_the\_twisted\_psychology\_that\_overwhelms\_scientific\_consensus/ [↑](#footnote-ref-1)
2. Paul Rosenberg (California-based writer/activist, senior editor for Random Lengths News, and a columnist for Al Jazeera English). “Why climate deniers are winning: The twisted psychology that overwhelms scientific consensus.” Salon. April 19th, 2014. http://www.salon.com/2014/04/19/why\_climate\_deniers\_are\_winning\_the\_twisted\_psychology\_that\_overwhelms\_scientific\_consensus/ [↑](#footnote-ref-2)
3. Ted Schettler (SEHN's Science Director, received his MD from Case-Western Reserve University and a masters degree in public health from the Harvard School of Public Health. He practiced medicine for many years in New England.Ted has worked extensively with community groups and non-governmental organizations throughout the US and internationally, addressing many aspects of human health and the environment. He has served on advisory committees of the US EPA and National Academy of Sciences.) and Carolyn Raffensperger (executive director of the Science and Environmental Health Network. In 1982 she left a career as an archaeologist in the desert Southwest to join the environmental movement. She first worked for the Sierra Club where she addressed an array of environmental issues, including forest management, river protection, pesticide pollutants, and disposal of radioactive waste. She began working for SEHN in December 1994. As an environmental lawyer she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment). “Why is a precautionary approach needed?” The precautionary principle: protecting public health, the environment and the future of our children. WHO. 2004. http://www.euro.who.int/\_\_data/assets/pdf\_file/0003/91173/E83079.pdf [↑](#footnote-ref-3)
4. Ted Schettler (SEHN's Science Director, received his MD from Case-Western Reserve University and a masters degree in public health from the Harvard School of Public Health. He practiced medicine for many years in New England.Ted has worked extensively with community groups and non-governmental organizations throughout the US and internationally, addressing many aspects of human health and the environment. He has served on advisory committees of the US EPA and National Academy of Sciences.) and Carolyn Raffensperger (executive director of the Science and Environmental Health Network. In 1982 she left a career as an archaeologist in the desert Southwest to join the environmental movement. She first worked for the Sierra Club where she addressed an array of environmental issues, including forest management, river protection, pesticide pollutants, and disposal of radioactive waste. She began working for SEHN in December 1994. As an environmental lawyer she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment). “Why is a precautionary approach needed?” The precautionary principle: protecting public health, the environment and the future of our children. WHO. 2004. http://www.euro.who.int/\_\_data/assets/pdf\_file/0003/91173/E83079.pdf [↑](#footnote-ref-4)
5. Stephen Babb (debate coach; highly values evidence ethics). “What Happened to Environmentalism Impacts?” Victory Briefs. January 17th, 2014. http://victorybriefs.com/vbd/2014/1/what-happened-to-environmentalism-impacts [↑](#footnote-ref-5)
6. Scott Harris (Director of Debate at U Kansas, 2006 National Debate Coach of the Year, Vice President of the American Forensic Association, 2nd speaker at the NDT in 1981). “This ballot.” 5 April 2013. CEDA Forums. <http://www.cedadebate.org/forum/index.php?action=dlattach;topic=4762.0;attach=1655> [↑](#footnote-ref-6)
7. Shammas, Michael (“Michael Shammas studied international relations and political theory at Duke University. He will be attending law school next year”). “For a Better Society, Teach Philosophy in High Schools.” HuffPo. 26 December 2012. <http://www.huffingtonpost.com/mike-shammas/for-a-better-society-teac_b_2356718.html?utm_hp_ref=tw> [↑](#footnote-ref-7)
8. Ted Schettler (SEHN's Science Director, received his MD from Case-Western Reserve University and a masters degree in public health from the Harvard School of Public Health. He practiced medicine for many years in New England.Ted has worked extensively with community groups and non-governmental organizations throughout the US and internationally, addressing many aspects of human health and the environment. He has served on advisory committees of the US EPA and National Academy of Sciences.) and Carolyn Raffensperger (executive director of the Science and Environmental Health Network. In 1982 she left a career as an archaeologist in the desert Southwest to join the environmental movement. She first worked for the Sierra Club where she addressed an array of environmental issues, including forest management, river protection, pesticide pollutants, and disposal of radioactive waste. She began working for SEHN in December 1994. As an environmental lawyer she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment). “Why is a precautionary approach needed?” The precautionary principle: protecting public health, the environment and the future of our children. WHO. 2004. http://www.euro.who.int/\_\_data/assets/pdf\_file/0003/91173/E83079.pdf [↑](#footnote-ref-8)
9. Stephen Babb (coaches for Harvard Westlake). “What Happened to Environmentalism Impacts?” Victory Briefs. January 17th, 2014. http://victorybriefs.com/vbd/2014/1/what-happened-to-environmentalism-impacts [↑](#footnote-ref-9)
10. Scott Harris (Director of Debate at U Kansas, 2006 National Debate Coach of the Year, Vice President of the American Forensic Association, 2nd speaker at the NDT in 1981). “This ballot.” 5 April 2013. CEDA Forums. <http://www.cedadebate.org/forum/index.php?action=dlattach;topic=4762.0;attach=1655> [↑](#footnote-ref-10)
11. Andrew Stirling (Science and Policy Research Unit, University of Sussex, Sussex, England, United Kingdom) and Joel Tickner (Lowell Center for Sustainable Production, Department of Work Environment, University of Massachusetts Lowell, Lowell, USA). “Implementing precaution: assessment and application tools for health and environmental decision-making.” WHO. 2004. http://www.euro.who.int/\_\_data/assets/pdf\_file/0003/91173/E83079.pdf [↑](#footnote-ref-11)
12. World Health Organization Secretariat. “Dealing with uncertainty – how can the precautionary principle help protect the future of our children?” April 2004, prepared for the Fourth Ministerial Conference on Environment and Health, Budapest held in June 2004. http://www.euro.who.int/\_\_data/assets/pdf\_file/0003/91173/E83079.pdf [↑](#footnote-ref-12)
13. Andy Stirling (professor of science and technology policy at the University of Sussex). “Why the precautionary principle matters.” The Guardian. June 8th, 2013. http://www.theguardian.com/science/political-science/2013/jul/08/precautionary-principle-science-policy [↑](#footnote-ref-13)
14. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-14)
15. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-15)
16. Andy Stirling (professor of science and technology policy at the University of Sussex). “Why the precautionary principle matters.” The Guardian. June 8th, 2013. http://www.theguardian.com/science/political-science/2013/jul/08/precautionary-principle-science-policy [↑](#footnote-ref-16)
17. David Dana (Northwestern University School of Law). “The Contextual Rationality of the Precautionary Principle.” Faculty Working Paper. 2009. [↑](#footnote-ref-17)
18. David Dana (Northwestern University School of Law). “The Contextual Rationality of the Precautionary Principle.” Faculty Working Paper. 2009. [↑](#footnote-ref-18)
19. Simon Grant and John Quiggin (University of Queensland, School of Economics). “Bounded awareness, heuristics, and the Precautionary Principle.” Journal of Economic Behavior and Organization. July 17th, 2013. [↑](#footnote-ref-19)
20. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-20)
21. Carolyn Raffensperger (the founding executive director of the Science and Environmental Health Network. An environmental lawyer, she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment. Raffensperger is co-editor of Protecting Public Health and the Environment: Implementing the Precautionary Principle, the most comprehensive exploration to date of the history, theory and implementation of the Precautionary Principle). “Precautionary Precepts: The Power and Potential of the Precautionary Principle.” 2004.<http://multinationalmonitor.org/mm2004/09012004/september04interviewraffen.html> [↑](#footnote-ref-21)
22. James Cone (Briggs Distinguished Professor of Systematic Theology at Union Theological Seminary). “Whose Earth is it Anyway?” Sojourners. July 2007. http://sojo.net/magazine/2007/07/whose-earth-it-anyway [↑](#footnote-ref-22)
23. Commons Select Committee. “GM foods and application of the precautionary principle in Europe.” English Parliament. February 14th, 2014. http://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/news/140214-gm-foods-and-application-of-the-precautionary-principle-in-europe/ [↑](#footnote-ref-23)
24. Anthony Gucciardi (Editor of NaturalSociety whose work has been read by millions worldwide). “Sorry Gates: GMO Crops Shown to be Ineffective at Fighting World Hunger.” Natural Society. March 2nd, 2012. http://naturalsociety.com/gmo-crops-proven-to-be-ineffective-at-fighting-world-hunger/ [↑](#footnote-ref-24)
25. University of Arizona. “Law Professor James Hopkins - "The Precautionary Principle and Indigenous Public Health: assessing comparative and international case studies"”. 2013. http://www.ais.arizona.edu/event/law-professor-james-hopkins-precautionary-principle-and-indigenous-public-health-assessing-com [↑](#footnote-ref-25)
26. Joel Tickner (Lowell Center for Sustainable Production), Carolyn Raffensperger and Nancy Meyers (SEHN). “The precautionary principle in action: A handbook.” Science and Environmental Health Network. 1999. [↑](#footnote-ref-26)
27. Marko Ahteensuu (University of Turku, Finland). “Defending the Precautionary Principle Against Three Criticisms.” Trames, 2007. <http://www.webpages.uidaho.edu/fish510/PDF/Critique%20of%20Precautionary.pdf> [↑](#footnote-ref-27)
28. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-28)
29. Natalia Soto Castelblanco. “Scope of the Environmental Precautionary Principle.” Prieto Carrizosa, Columbian law firm which provides legal advice for local and international companies and has also provided advice for the Columbian government. 2011. http://www.prietocarrizosa.com/en/news/scope-environmental-precautionary-principle [↑](#footnote-ref-29)
30. Julius Court, Goran Hyden, and Ken Mease. “The Judiciary and Governance in 16 Developing Countries.” United Nations University. World Governance Survey Discussion Paper 9. May 2003. http://www.odi.org.uk/sites/odi.org.uk/files/odi-assets/publications-opinion-files/4108.pdf [↑](#footnote-ref-30)
31. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-31)
32. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-32)
33. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-33)
34. Stephen Babb (coaches for Harvard Westlake). “What Happened to Environmentalism Impacts?” Victory Briefs. January 17th, 2014. http://victorybriefs.com/vbd/2014/1/what-happened-to-environmentalism-impacts [↑](#footnote-ref-34)
35. Jiménez-Aleixandre, professor of education – University of Santiago de Compostela, and Pereiro-Muñoz High School Castelao, Vigo (Spain), ‘2 (Maria-Pilar and Cristina, “Knowledge producers or knowledge consumers? Argumentation and decision making about environmental management,” International Journal of Science Education Vol. 24, No. 11, p. 1171–1190) [↑](#footnote-ref-35)
36. David Director of Debate at U Miami, Former President of CEDA, officer, American Forensic Association and National Communication Association. Lecturer in Communication studies and rhetoric. Advisor to Miami Urban Debate League, Masters in Communication, and Austin, JD, Suffolk University, attorney who focuses on criminal, personal injury and civil rights law, Argumentation and Debate

    Critical Thinking for Reasoned Decision Making, Thirteen Edition [↑](#footnote-ref-36)
37. Bill Gates (college dropout). “Using technology.” 9 January 2007. CNN Money. <http://money.cnn.com/2007/01/09/magazines/fortune/Gates_philanthropy.fortune/index3.htm> [↑](#footnote-ref-37)
38. David. Society for the Advancement of American Philosophy. “The Cultural Left and the Limits of Social Hope” [www.americanphilosophy.org/archives/2001%2520Conference/Discussion%2520papers/david\_mcclean.htm+foucault+habermas+slapped+cud&hl=en&gl=us&ct=clnk&cd=1](http://www.americanphilosophy.org/archives/2001%2520Conference/Discussion%2520papers/david_mcclean.htm+foucault+habermas+slapped+cud&hl=en&gl=us&ct=clnk&cd=1) 2001 [↑](#footnote-ref-38)
39. William Connolly (Professor of Political Science at John Hopkins) Capitalism and Christianity, American Style. 2008. [↑](#footnote-ref-39)
40. Wendy Brown, Professor of Political Science @ UC Berkeley, Politics Out of History, pg. 35-37. 2001 [↑](#footnote-ref-40)
41. Ward Churchill (Professor of American Indian Studies at the University of Colorado). “Semantic Masturbation on the Left: A Barrier to Unity and Action,” From A Native Son: Selected Essays in Indigenism, 1985-1995. Published by South End Press. 1996, p. 460 [↑](#footnote-ref-41)
42. Alexander Wendt, Professor of International Security at Ohio State University, 1999, “Social theory of international politics,” gbooks [↑](#footnote-ref-42)
43. Law Professor, George Mason (Peter, On Toleration, The American Interest 3.4) [↑](#footnote-ref-43)
44. Russell Mokhiber (editor of *Corporate Crime Reporter*) and Robert Weissman (editor of *Multinational Monitor*). “Top 10 Reasons to Shutter the WTO.” Mother Jones. November 24th, 1999. http://www.motherjones.com/politics/1999/11/top-10-reasons-shutter-wto [↑](#footnote-ref-44)
45. Rajesh Makwana (executive director of Share the World’s Resources). “Neoliberalism and Economic Globalization.” Share the World’s Resources, NGO with consultative status in the UN. November 23rd, 2006. http://www.stwr.org/globalization/neoliberalism-and-economic-globalization.html [↑](#footnote-ref-45)
46. Liam Downey, Eric Bonds, and Katherine Clark (University of Colorado at Boulder). “Natural Resource Extraction, Armed Violence, and Environmental Degradation.” Organ Environ. 2010 December ; 23(4): 417–445. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3169238/pdf/nihms317120.pdf> [↑](#footnote-ref-46)
47. William Connolly (Krieger-Eisenhower Professor of Political Science at Johns Hopkins University). The Fragility of Things: Self-Organizing Processes, Neoliberal Fantasies, and Democratic Activism. Duke University Press. 2013. [↑](#footnote-ref-47)
48. William Connolly (Krieger-Eisenhower Professor of Political Science at Johns Hopkins University). The Fragility of Things: Self-Organizing Processes, Neoliberal Fantasies, and Democratic Activism. Duke University Press. 2013. [↑](#footnote-ref-48)
49. William Connolly (Krieger-Eisenhower Professor of Political Science at Johns Hopkins University). The Fragility of Things: Self-Organizing Processes, Neoliberal Fantasies, and Democratic Activism. Duke University Press. 2013. [↑](#footnote-ref-49)
50. Gillian Bristow (School of City & Regional Planning, Cardiff University), Resilient regions: re-‘place’ing regional competitiveness, Cambridge Journal of Regions, Economy and Society 2010, 3, 153–167 [↑](#footnote-ref-50)
51. Carolyn Raffensperger (the founding executive director of the Science and Environmental Health Network. An environmental lawyer, she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment. Raffensperger is co-editor of Protecting Public Health and the Environment: Implementing the Precautionary Principle, the most comprehensive exploration to date of the history, theory and implementation of the Precautionary Principle). “Precautionary Precepts: The Power and Potential of the Precautionary Principle.” 2004.<http://multinationalmonitor.org/mm2004/09012004/september04interviewraffen.html> [↑](#footnote-ref-51)
52. Raul Harari, Rocio Freire Morales, and Homero Harari (from the IFA Corporation for Development of Production and Work Environment Quito, Ecuador). “Major Concerns In Developing Countries: Applications of the Precautionary Principle in Ecuador.” International Journal of Occupational Medicine and Environmental Health, 2004; 17(1): 187 — 191 http://test.imp.lodz.pl/upload/oficyna/artykuly/pdf/full/Har23-01-04.pdf [↑](#footnote-ref-52)
53. Science and Environmental Health Network. “The Precautionary Principle: A Fact Sheet.” March 1998. <http://www.sehn.org/Volume_3-1.html> [↑](#footnote-ref-53)
54. Simon Grant and John Quiggin (University of Queensland, School of Economics). “Bounded awareness, heuristics, and the Precautionary Principle.” Journal of Economic Behavior and Organization. July 17th, 2013. [↑](#footnote-ref-54)
55. Noah Sachs (Associate Professor, University of Richmond School of Law and Director, Robert R. Merhige, Jr. Center for Environmental Studies). “Rescuing the Strong Precautionary Principle from its Critics.” University of Illinois Law Review. August 1st, 2011. [↑](#footnote-ref-55)
56. Carolyn Raffensperger (the founding executive director of the Science and Environmental Health Network. An environmental lawyer, she specializes in the fundamental changes in law and policy necessary for the protection and restoration of public health and the environment. Raffensperger is co-editor of Protecting Public Health and the Environment: Implementing the Precautionary Principle, the most comprehensive exploration to date of the history, theory and implementation of the Precautionary Principle). “Precautionary Precepts: The Power and Potential of the Precautionary Principle.” 2004.<http://multinationalmonitor.org/mm2004/09012004/september04interviewraffen.html> [↑](#footnote-ref-56)
57. Science and Environmental Health Network. “An Environmental Right for Future Generations.” November 2008. https://www.dropbox.com/sh/lsoto7awoecpjig/iqhoJ1A7YF/Jan-Feb-2014 [↑](#footnote-ref-57)
58. Science and Environmental Health Network. “Models for Protecting the Environment for Future Generations.” October 2008. http://www.sehn.org/pdf/Models\_for\_Protecting\_the\_Environment\_for\_Future\_Generations.pdf [↑](#footnote-ref-58)
59. Joel Tickner (Lowell Center for Sustainable Production), Carolyn Raffensperger and Nancy Meyers (SEHN). “The precautionary principle in action: A handbook.” Science and Environmental Health Network. 1999. [↑](#footnote-ref-59)
60. Stephen Bickham (Professor of Philosophy at Mansfield State College). “Future Generations and Contemporary Ethical Theory.” 1981. <http://profs-polisci.mcgill.ca/muniz/intergen/Bickham%20-%20Future%20generations%20and%20contemporary%20ethical%20theory.pdf> [↑](#footnote-ref-60)
61. Jessica Godofsky (student at The College of New Jersey). “FUTURE GENERATIONS AND THE RIGHT TO SURVIVAL: A DEONTOLOGICAL ANALYSIS OF THE MORAL OBLIGATIONS OF PRESENT TO FUTURE PEOPLE.” TCNJ Journal of Student Scholarship. April 2010. <http://joss.pages.tcnj.edu/files/2012/04/2010-Godofsky.pdf> [↑](#footnote-ref-61)
62. Science and Environmental Health Network. “Models for Protecting the Environment for Future Generations.” October 2008. http://www.sehn.org/pdf/Models\_for\_Protecting\_the\_Environment\_for\_Future\_Generations.pdf [↑](#footnote-ref-62)